

California Regional Water Quality Control Board  
Santa Ana Region

December 19, 2001

ITEM: \*5

SUBJECT:

Waste Discharge and Producer/User Reclamation Requirements for the City of Corona's Municipal Wastewater Treatment Plant No. 1, Riverside County, Order No. 01-55, NPDES No. CA8000383.

DISCUSSION:

See Attached Fact Sheet

RECOMMENDATION:

Adopt Order No. 01-55, NPDES No. CA8000383, as presented.

Comments were solicited from the following agencies:

U.S. Environmental Protection Agency, Permits Issuance Section (WTR-5) - Terry Oda  
U.S. Army Corps of Engineers, Los Angeles District – Regulatory Branch  
U.S. Fish and Wildlife Service – Carlsbad  
State Water Resources Control Board, Office of the Chief Counsel – Jorge Leon  
State Water Resources Control Board, Division of Water Quality - James Kassel  
State Water Resources Control Board, Division of Clean Water Programs – Lynn E. Johnson  
State Department of Health Services, Carpinteria – John Curphey  
State Department of Health Services, Carpinteria - Jeff Stone  
State Department of Health Services, San Diego – Steve Williams  
State Department of Water Resources - Glendale  
State Department of Fish and Game, Los Alamitos – Laura Crum  
Orange County Water District - Nira Yamachika  
Riverside County Flood Control – Mark Wills  
Riverside County Environmental Health Services – Sam Martinez  
Santa Ana Watershed Project Authority – Joseph Grindstaff  
Santa Ana River Dischargers Association – Joseph Zoba  
Orange County Coastkeeper – Garry Brown  
Lawyers for Clean Water C/c San Francisco Baykeeper

California Regional Water Quality Control Board  
Santa Ana Region  
3737 Main Street, Suite 500  
Riverside, CA 92501-3348

December 19, 2001

**FACT SHEET**

The attached pages contain information concerning revised waste discharge requirements and a National Pollutant Discharge Elimination System (NPDES) permit.

**I. FACILITY DESCRIPTION:**

The City of Corona (hereinafter discharger) presently operates the City of Corona Wastewater Treatment Plant No. 1 (Plant No. 1). Plant No. 1 is located at 2205 Railroad Street in the north-western portion of the City of Corona. The facility location is shown in Attachment "A" of this Fact Sheet.

Discharges from Plant No. 1 are currently regulated under Order No. 98-2, NPDES No. CA8000383, which was adopted by the Regional Board on April 17, 1998. Order No. 98-2 expired on July 1, 2001. On August 7, 2001, the discharger completed the application for revised waste discharge requirements. Tentative Order No. 01-55, NPDES No. CA8000383, will regulate the discharge of: 1) up to 9 million gallons per day (mgd) of tertiary treated wastewater from Plant No. 1 to Temescal Creek, Reach 1A (Discharge Serial 001); 2) up to ~~2.5~~ **5.5** mgd of secondary treated wastewater to percolation ponds (Discharge Serial 002); and 3) the production and use of recycled water. **Cumulative flows for discharges to Serial 001 and Serial 002 will not exceed 11.5 mgd.**

Currently, Plant No. 1 receives up to **9.3** mgd of domestic and commercial/industrial influent generated within the ~~western portion of the~~ City of Corona's service area<sup>1</sup>.

Plant No. 1 was originally a 5.5 million gallons per day (mgd) secondary treatment facility (now Plant 1A) that was expanded in 1998 to include a 14.5 mgd headworks, a **parallel** 6 mgd secondary treatment train (**Plant 1B**), and a 9 mgd tertiary treatment train (Plant 1B). The headworks structure consists of two channel grinders and a grit removal system. A flow splitter separates 5.5 mgd to Plant 1A and 6 mgd for treatment in Plant 1B.

The Plant 1A treatment train consists of primary sedimentation, aeration, secondary clarification, and sludge treatment. An average of 2.5 mgd of the 5.5 mgd of secondary treated wastewater is pumped one mile east to a cluster of three percolation ponds. One pond is located along Lincoln Avenue ("Lincoln pond") and two ponds are located at the end of Rincon Street near Cota Street ("Cota ponds"). The remaining 3 mgd of secondary effluent ~~is~~ **may be** discharged to an equalization basin where it mixes with the secondary treated effluent from Plant 1B. The commingled secondary treated wastewater is then tertiary treated at the 9 mgd treatment train of Plant 1B.

<sup>1</sup>

*The City of Norco may discharge its wastewater to this facility on an emergency basis.*

The construction of Plant 1B was completed in fall 1998. The secondary treatment train of Plant 1B consists of two parallel oxidation ditches with anoxic zones; two circular final clarifiers with sludge recovery; and an equalization basin. The tertiary treatment train of Plant 1B consists of coagulation, continuous backwash sand filtration, and ultraviolet light (UV) disinfection.<sup>2</sup>

Sludge treatment is provided as follows. From Plant 1A, ~~there is no return activated sludge (RAS) and all~~ waste activated sludge goes to two dissolved air flotation (DAF) thickening units, three anaerobic digesters, and two dewatering belt presses. From the Plant 1B final clarifiers, ~~return activated sludge~~ (RAS) is returned to the oxidation ditches and waste activated sludge (WAS) is pumped to the two belt presses. All belt press filtrate is reintroduced to the oxidation ditches and sludge cake is transported to an ~~appropriate local landfill~~ approved composting facility. Plant No. 1 also receives sludge, ~~including cheese waste, pumped~~ from Corona Municipal Treatment Plant No. 2.

The City also processes cheese waste sludge using separate facilities from biosolids, with the exception of dewatering equipment (belt presses). Cheese waste sludge is dewatered in a batch process separately from biosolids, and this filtrate is collected and clarified using a chlorine contact chamber that is no longer used for municipal sewage. Clarified cheese waste filtrate is pumped to the Santa Ana Regional Interceptor Project (SARI) line.

A schematic diagram of the treatment processes is shown in Attachment "B" of this Fact Sheet.

Tertiary treated effluent is discharged through a subterranean pipe to the Butterfield Drain, which is tributary to Temescal Creek, Reach 1A. The discharge outfall is located at latitude N 33°53'43.94", longitude W 117°36'34.95." Temescal Creek is tributary to the Santa Ana River, Reach 3.

The City is implementing water recycling through a recycled water master plan. An annual average volume of 0.08 mgd of tertiary treated recycled water is currently used to irrigate nearby Butterfield Park.

The City has discontinued the discharge of disinfected secondary effluent to ten percolation ponds located near the Corona Airport.

The City of Corona is a participating agency ~~in~~ using the SARI line. ~~Santa Ana Regional Interceptor Project (SARI) line.~~ The SARI line conveys wastes to the Orange County Sanitation District's facilities for treatment and ocean disposal. The City has a raw sewage treatment and disposal right of 3.278 mgd in the SARI line. This disposal right allows the discharger to divert to the SARI line a portion of the total influent into the treatment plant that is above the plant's current design capacity. Use of the SARI line will be on an as-needed basis.

<sup>2</sup>

There is no longer any chlorine disinfection at Plant No. 1. Only minor chlorination is used for sludge control.

Under dry weather conditions, very little natural flow in the receiving waters exists. Effluent discharges from municipal wastewater treatment facilities, including the discharge from this facility comprises most of the flow in Temescal Creek and in the Santa Ana River, Reach 3.

In accordance with Section 402 (p) of the Federal Clean Water Act, USEPA published the final regulations for storm water runoff on November 16, 1990 (40 CFR Parts 122, 123 and 124). Industrial facilities, including POTW sites, are required to obtain NPDES Permits for storm water discharges. On April 17, 1997, the State Board adopted a General Industrial Storm Water Permit, Order No. 97-03-DWQ, NPDES No. CAS000001. At Plant No. 1, on-site stormwater runoff is collected in an unlined earthen retention basin in the southeastern corner of the plant. The retention basin has a capacity of 1.45 million gallons and will hold the runoff from a 100-year storm event. The collected stormwater will be pumped to the Plant 1A aeration basins for treatment using ~~a 6.5 mgd~~ large capacity portable pumps kept at the plant site. Backup pumps will be provided as necessary. There are no direct discharges of stormwater from the site to surface waters. Consequently, coverage under Order No. 97-03-DWQ is not necessary.

## **II. REGULATORY BASIS FOR WASTE DISCHARGE REQUIREMENTS:**

This Order includes requirements that implement the Water Quality Control Plan (Basin Plan) adopted by the Regional Board on March 11, 1994. This Basin Plan became effective on January 24, 1995. This Plan specifies water quality objectives and beneficial uses for the waters of the Santa Ana Region.

The Basin Plan also specifies wasteload allocations for total dissolved solids (TDS) and total inorganic nitrogen<sup>3</sup> (TIN) for the City of Corona's discharges to Temescal Creek and the upper Santa Ana River. These allocations were established to assure compliance with the TDS and TIN objectives for the River and to protect underlying groundwater. The TIN and TDS limits specified in this Order for discharges to Temescal Creek are based on the wasteload allocations.

Tertiary treated wastewater from the treatment plant will be discharged to Temescal Creek, Reach 1A. The beneficial uses of Temescal Creek, Reach 1A include: agricultural supply; industrial service supply; groundwater recharge; water contact recreation; non-contact water recreation; warm freshwater habitat; wildlife habitat; rare, threatened or endangered species; and spawning, reproduction and development. Temescal Creek is tributary to the Santa Ana River, Reach 3, the beneficial uses of which include: agricultural supply; groundwater recharge; water contact recreation; non-contact water recreation; warm freshwater habitat; wildlife habitat; and rare, threatened, and endangered species.

Secondary treated wastewater from the treatment plant will be discharged to the "Lincoln" and "Cota Ponds." The discharge overlies the Temescal Groundwater Subbasin, the beneficial uses of which include: municipal and domestic supply; agricultural supply; industrial process supply; and industrial service supply.

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<sup>3</sup> Total Inorganic Nitrogen (TIN) is the sum of the nitrate-N, nitrite-N and ammonia-N.

The State Water Resources Control Board (State Board) adopted a water reclamation policy on January 6, 1977. This policy requires that wastewater recycling requirements be issued to primary users of recycled water. Recycling requirements are included in this Order to address current and future use of recycled water.

Article 3, Section 60305 of Title 22, Division 4, Chapter 3, "Water Recycling Criteria" of the California Code of Regulations specifies that recycled water used as a source supply for non-restricted recreational impoundments shall be disinfected tertiary recycled water that has been subjected to conventional treatment. Section 60305 also provides that disinfected tertiary recycled water that has not received conventional treatment may be used for nonrestricted recreational impoundments provided that the recycled water is monitored for the presence of pathogenic organisms in accordance with certain conditions. The degree of treatment specified represents an approximately 5-log reduction in the virus content of the water. The State Department of Health Services has determined that this degree of virus removal is necessary to protect the health of people using these impoundments for water contact recreation. The Department of Health Services has developed wastewater disinfection guidelines ("Wastewater Disinfection for Health Protection", Department of Health Services, Sanitary Engineering Branch, February 1987) for discharges of wastewater to surface waters where water contact recreation (REC-1) is a beneficial use. The disinfection guidelines recommend the same treatment requirements for wastewater discharges to REC-1 waters as those stipulated in Title 22 for supply of recycled water to non-restricted recreational impoundments, since the public health risks under both scenarios are analogous. The disinfection guidelines are based on sound science and are widely used as guidance to assure public health and beneficial use protection.

Temescal Creek and the Santa Ana River are not "non-restricted recreational impoundments," nor is "disinfected tertiary recycled water" (as defined in the Water Recycling Criteria) being used as a supply source for the Creek and the River. However, except during major storms, most of the flow in the Creek and the River is composed of treated municipal wastewater discharges. The Creek and River are used for water contact recreation and, accordingly, are designated REC-1 (water contact beneficial use). People recreating in the Creek and River face an exposure similar to those coming in contact with recycled water in an impoundment. Therefore, to protect the water contact recreation beneficial use and to prevent nuisance and health risk, it is necessary and appropriate to require the same degree of treatment for wastewater discharges to the Creek and River as would be required for the use of recycled water in a non-restricted recreational impoundment. Thus, this Order specifies requirements based on tertiary or equivalent treatment.

The proposed Order specifies numeric and narrative limits for the control of toxic substances. These limits are based on the following:

1. 1995 Basin Plan
2. Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California adopted on March 2, 2000 by the State Water Resources Control Board (hereinafter, "Policy")
3. Code of Federal Regulations (40 CFR Parts 122-503)
4. U.S. EPA, Quality Criteria for Water (1986)

5. National Toxics Rule (Federal Register, vol. 57, No. 256, Dec. 22, 1992, 60848-60922)
6. U.S. EPA, Office of Water Policy and Technical Guidance on Interpretation of Aquatic Life Metals Criteria (October 1, 1993)
7. Technical Support Document for Water Quality-based Toxics Control (EPA/505/2-90-001, March 1991)
8. Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California, promulgated in May 18, 2000 by the U.S. EPA.
9. Santa Ana River Use-Attainability Analysis, Volume 10, Calculation of Total-to-Dissolved Metal Ratios to Translate Site-Specific Water Quality Objectives into NPDES Effluent Limits", Risk Sciences (May, 1994).
10. Water Quality Criterion for the Protection of Human Health: Methylmercury – EPA-823-R-01-001, January 2001.

This Order implements federal regulations specified in 40 CFR 122, 123, 124, 125, and 501, which pertain to all publicly-owned treatment works (POTW) with average design flows exceeding 1mgd.

This Order contains requirements for the implementation of an effective pretreatment program pursuant to Section 307 of the Federal Clean Water Act Parts 35 and 403 of Title 40, Code of Federal Regulations (40 CFR 35 and 40 CFR 403) and Section 2233, Title 23, California Code of Regulations.

The State Water Resources Control Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (Policy) on March 2, 2000. This Policy establishes implementation provisions for priority pollutant criteria promulgated by the U.S. Environmental Protection Agency (U.S. EPA) through the National Toxics Rule (NTR) (promulgated on December 22, 1992 and amended on May 4, 1995) and through the California Toxics Rule (CTR) (promulgated on May 18, 2000).

### **III. PROPOSED EFFLUENT LIMITATIONS:**

The limitations in this Order are intended to control pollutants in the waste discharge, maintain water quality, and protect the beneficial uses of the affected receiving waters. Revisions to water quality objectives, to beneficial uses, or to the implementation plan specified in the Basin Plan may occur in the course of periodic review and update of the Plan. These waste discharge requirements will be re-evaluated and may be revised to accommodate any of these changes.

#### **A. Biochemical Oxygen Demand (BOD) and Suspended Solids (SS)**

The proposed Biological Oxygen Demand (BOD) and suspended solids limits are based on values that are achievable with tertiary treatment. These limits are intended to ensure that only adequately oxidized wastewater is discharged.

#### **B. Total Dissolved Solids (TDS)/Inorganic Minerals**

The proposed TDS limit for the discharge to Temescal Creek is based on the Basin Plan wasteload allocation for TDS discharges to the Santa Ana River system. To implement the Basin Plan, the proposed order specifies a TDS limit of 700 milligrams per liter (mg/l), and a TDS limit based on the quality of the water supplied to the service area plus a reasonable use increment of 250 mg/l<sup>4</sup>. The more restrictive of the two TDS limits applies to the discharges. The mineral limits for chloride and total hardness were based on the water quality objectives for the Santa Ana River, Reach 3, while limits for sodium and sulfate were based on the water quality objectives for Temescal Creek, Reach 1A.

The TDS limit specified for discharges to the “Lincoln” and “Cota” ponds is based on the water quality objective of the Temescal Groundwater Subbasin (840 mg/l) or the quality of the water supplied to the service area plus a reasonable use increment of 250 mg/l. The more restrictive of the two TDS limits applies to the discharge to these ponds.

The Basin Plan recognizes that strict compliance with the TDS limits may be difficult to achieve. The Basin Plan describes the regulatory approach the Regional Board uses to address such situations. The Board incorporates offset provisions in waste discharge requirements whereby dischargers can participate in approved programs to offset TDS discharges in excess of specified TDS limits, provided that the discharger makes all reasonable efforts to improve the TDS quality of the water supply (and, thereby, the wastewater). The Board has indicated that participation in the watershed-wide study of TDS and total inorganic nitrogen (TIN) which is being conducted under the auspices of a number of dischargers and other interested parties, with participation by the Regional Board and coordination by the Santa Ana Watershed Project Authority (SAWPA), will constitute an acceptable TDS offset. The study may lead to revised findings regarding TDS assimilative capacity and recommendations for changes to the TDS wasteload allocation and other TDS management strategies that will be reflected in a Basin Plan amendment. This Order provides that participation in the TIN/TDS study will constitute an acceptable salt offset program.

The City of Corona may not be able to comply with the 700 mg/l TDS limit for discharges to Temescal Creek. The City is currently implementing the following to offset TDS discharges in excess of the limits specified in waste discharge requirements for discharges from the City's Plants No. 1, 2, and 3:

- a. Participation in the watershed-wide study of TDS and total inorganic nitrogen (TIN) (hereafter, the TIN/TDS study); and,
- b. Construction of a 10 mgd Temescal Basin desalter facility. This facility has just been completed. The water produced by the desalter will be of high TDS quality and its introduction into the City's current supply sources will result in improvement of the quality of the City's water supply as a whole. In turn, this will result in reduction of the amount of TDS in the City's discharge and in the water which is returned to the groundwater underlying the service area (as a result

of water use for landscape irrigation, etc.). Furthermore, extraction and treatment of the groundwater from the underlying Temescal Groundwater Subbasin will result in improvement of groundwater quality. Since groundwater ultimately rises into the River, an improvement in groundwater quality will also result in improvement of River quality.

This Order finds that the construction/implementation of a 10 mgd desalter and ultimate use of product water by the City is a reasonable effort by the City to improve the TDS quality of its water supply and wastewater discharge. Further, this Order finds that because it would result in improvement of the groundwater quality of the Temescal Groundwater Subbasin and ultimately of the Santa Ana River, this action also constitutes an acceptable TDS offset program. This Order requires the City to implement this offset proposal.

Total dissolved solids is essentially the summation of the concentrations of sodium, sulfate, chloride, and total hardness (carbonates) in water. The water quality objectives for these individual mineral constituents are commensurate with the TDS objective for a groundwater subbasin. An exceedance of the TDS objective would likely result in an exceedance of one or more of the objectives for these components of TDS. Therefore, although the offset provision mentioned above specifically addresses only TDS, it is reasonable that this provision should also apply to those individual mineral components of TDS.

C. Total Inorganic Nitrogen (Nitrate, Nitrite, Ammonia)

High concentrations of nitrates in domestic water can be toxic to human life. To protect human health, the concentrations of nitrates in lakes, streams, and groundwater which are sources of drinking water must not exceed 45 mg/l (as  $\text{NO}_3$ ) or 10 mg/l (as N) as a result of controllable water quality factors.

On November 15, 1991, the Regional Board adopted a revised wasteload allocation for total inorganic nitrogen (TIN) in Publicly Owned Treatment Works (POTW) discharges to the Santa Ana River and its tributaries and to groundwater in the Upper Santa Ana River Basin. In accordance with the revised wasteload allocation, the proposed order specifies a TIN limit of 10 mg/l for discharges to Temescal Creek and the Cota Street/Lincoln Avenue ponds.

Un-ionized ammonia exists in equilibrium with ammonium ( $\text{NH}_4^+$ ) and hydroxide ( $\text{OH}^-$ ) ions. The concentrations of ammonium and hydroxide ions change with temperature, pH, and salinity of the water. In accordance with the Basin Plan, this Order specifies an average monthly effluent limitation of 4.5 mg/l for total ammonia-nitrogen.

D. Trace Constituent Limitations

The U.S. EPA has identified 126 priority pollutants, including metals and organic chemicals, and has promulgated water quality objectives for many of these substances in the California Toxics Rule and National Toxics Rule. The State Board's Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California (Policy) specifies the procedures that are to be used in implementing these objectives in waste discharge requirements. Numeric effluent limitations must be specified for those priority pollutants that



are determined to have the reasonable potential to cause or contribute to a violation of the applicable objectives. To determine reasonable potential, the maximum effluent concentrations are compared to the criteria values specified in the California Toxics Rule. If the detected concentrations are less than the objectives, it is concluded that the effluent poses no reasonable potential to exceed water quality objectives for that constituent, and numeric effluent limitations for that constituent are not required. However, periodic monitoring for such constituents is required. In situations where the criteria value and all available effluent and receiving water data are below detection limits, no reasonable potential determination could be made and again, effluent limits are not required. However, the discharger is also required to monitor these pollutants on a regular basis.

To determine reasonable potential for pollutants in the discharger's effluent to exceed water quality objectives, Board staff used the procedures outlined in the State Board's Policy. Influent and effluent monitoring data for the City of Corona Plant No. 1 were used in this analysis. The maximum effluent concentrations for individual constituents that were detected in the effluent were compared to the criteria values specified in the California Toxics Rule. If the detected concentrations were less than the criteria, it was concluded that the effluent posed no reasonable potential to exceed water quality objectives for that constituent and no effluent limits for that constituent are specified in this Order. In situations where the criteria value and all available effluent data were below detection limits and receiving water data are unavailable, staff was unable to determine if there was a reasonable potential to cause a water quality objective to be exceeded. Therefore, effluent limits for those constituents were also not included in this Order. However, the discharger is required to monitor for these pollutants on a quarterly basis at detection levels that are specified in the Order. If warranted by the results of this monitoring, this Order will be reopened to incorporate appropriate effluent limits.

Plant No. 1 monitoring data for the year 1999 and 2000 showed that bis (2-ethylhexyl) phthalate had a single value that exceeded the respective CTR criteria values. Other dischargers within the Santa Ana Region have reported levels of bis (2-Ethylhexyl)phthalate in excess of the objective and have conducted studies to determine its source. The conclusions drawn to date have been that the bis (2-Ethylhexyl)phthalate reported in effluent analyses reflect contamination during the sample collection or analysis process. Bis(2-Ethylhexyl)phthalate is widely used in plastic bottles and tubing used to collect and analyze samples. No receiving water data for this constituent are available. No limit for bis (2-ethylhexyl) phthalate is included in the Order. Rather, the Order includes an interim requirement for the discharger to conduct a controlled and intensive one-year monitoring program of the effluent for bis (2-ethylhexyl) phthalate using methods and equipment that would prevent sample contamination, produce reliable test results, and use a test detection level acceptable to the Regional Board. Should monitoring data show a reasonable potential for the constituent to exceed objectives, this Order will be reopened to include a limit for bis (2-ethylhexyl) phthalate.

Similarly, the 1999 and 2000 data showed that tetrachloroethylene (PCE), Endosulfan I and 4,4'-DDT each had a single value that exceeded the respective CTR criteria values. Staff believes that additional monitoring is required to conclude that reasonable potential for these constituents to exceed criteria values exist. In accordance with Section 2.2.2.A. of the State Implementation Policy (Policy), this Order does not specify effluent limitations for these constituents but requires the

discharger to monitor them monthly for one year at appropriate detection levels. If warranted by the results of this monitoring, this Order will be reopened to incorporate appropriate effluent limits.

For discharges to the percolation ponds, effluent limits for metals are included in this Order. These limits are based on the Basin Plan groundwater objectives for metals.

E. Toxicity Limitations

This Order requires the discharger to conduct chronic<sup>5</sup> toxicity testing of the effluent on a monthly basis. The Order also requires the discharger to conduct an Initial Investigation Toxicity Reduction Evaluation (IITRE<sup>6</sup>) program when either the two-month median of toxicity test results exceeds 1 TUc or any single test exceeds 1.7 TUc for survival endpoint. Based on the results of this investigation program and at the discretion of the Executive Officer, a more rigorous Toxicity Reduction Evaluation/Toxicity Identification Evaluation (TRE/TIE) may be required. A re-opener provision is included in the Order to incorporate a chronic toxicity effluent limitation if warranted by the toxicity test results.

F. Compliance

Many of the objectives specified in the California Toxics Rule, and the effluent limits that implement them, are at extremely low concentrations. In several cases, these concentrations are below current laboratory detection values. As such, it is necessary to require laboratory analyses to be performed to the lowest possible concentrations. The Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (Policy) includes a list of priority pollutants with their respective Minimum Levels (ML)<sup>7</sup> on which “reported Minimum Levels” (i.e., quantitation values for the sample) shall be based. The Policy recognizes that the “reported ML” may be orders of magnitude different than the listed MLs depending on the amount of dilution/concentration required for sample preparation, and the amount of dilution necessary to address matrix interferences. Unfortunately, the policy lacks guidance for the development of appropriate “reported MLs”.

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<sup>5</sup> The chronic test method for the water flea “*Ceriodaphnia dubia*” also measures acute toxicity.

<sup>6</sup> An IITRE is the initial stage of investigation conducted prior to implementing a complete toxicity reduction evaluation (TRE) study. A TRE is a stepwise process for identifying the agent(s) and/or source(s) of toxicity in a given effluent.

<sup>7</sup> Minimum Level is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

The Regional Board has required discharges to meet practical quantitation levels (PQLs<sup>8</sup>). The PQLs for wastewater were developed based on the following:

1. A survey of laboratories in the Southern California area and a review of method detection levels (MDLs) in accordance with 40 CFR 136 for a wastewater matrix reported by local laboratories;
2. The consensus PQLs were determined during the meeting of major Southern California laboratories with the Regional Board staff on January 28, 1992. The consensus PQLs are believed to represent the lowest quantitation levels that can be achieved by most laboratories in Southern California based on proven laboratory performance and the reasonable application of best available analytical technology for most toxic substances;
3. The report "A Study To Determine The Practical Quantitation Levels (PQL) For Selected Water Chemistry Parameters Analyzed by Commercial Laboratories Operating In The Santa Ana River Watershed" (Risk Sciences, 1993). This report recommended PQLs for cadmium, copper, lead, selenium, and silver that better represented the actual PQLs attained by analytical laboratories performing analyses for these substances in a recycled water matrix.

Order No. 01-55 sets the PQLs listed in Attachment "A" of the monitoring and reporting program as the "reported MLs" for those constituents listed, until June 1, 2002. For all other constituents not listed in the PQL list, the lowest detection level achieved by the discharger shall be used with prior approval by the Executive Officer. Order No. 01-55 requires that by June 1, 2002, the discharger shall meet the quantitation levels specified in Attachment "B" of the Monitoring and Reporting Program No. 01-55 for those priority pollutants with effluent limitations in the Order.

In cases where the discharger believes that the sample matrix justifies a different "reported ML", the discharger is required to demonstrate to the satisfaction of the Regional Board's Executive Officer the appropriateness of the alternative "reported ML" for that sample matrix prior to June 1, 2002.

All analytical data are required to be submitted with the corresponding MDLs and MLs. Sample results shall be reported as "DNQ" (Detected, but Not Quantified) if the results are less than the reported ML, but greater than the MDL. Sample results shall be reported as "ND" (Not Detected) if the results are less than the MDL.

Dischargers shall be deemed out of compliance with an effluent concentration limit if the concentration of the effluent sample is greater than the effluent limit and greater than or equal to the "reported ML." Dischargers shall not be deemed out of compliance for any sample result reported

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<sup>8</sup> *PQL is the lowest concentration of a substance that can be determined within  $\pm 20$  percent of the true concentration by 75 percent of the analytical laboratories tested in a performance evaluation study. Alternatively, if performance data are not available, the PQL is the method detection limit (MDL)  $\times 5$  for carcinogens and MDL  $\times 10$  for noncarcinogens.*

as DNQ or ND. However, the discharger is required to conduct a Pollutant Minimization Program, as described in the Policy, if there is an indication that a constituent is present in the effluent above an effluent limitation and either:

- a. A sample result is reported as DNQ and the effluent limitation is less than the “reported ML”, or
- b. A sample result is reported as ND and the effluent limitation is less than the MDL.

#### **IV. ANTIDEGRADATION ANALYSIS:**

The Regional Board has considered antidegradation pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16. These waste discharge requirements do not permit any increase in the concentration and mass loading of pollutants over that currently permitted. The quality of the receiving waters is not expected to degrade as a result of this discharge. Neither the constituent concentrations of the discharge nor the mass loading of pollutants associated with the discharge are expected to adversely impact water quality or affect the beneficial uses of the receiving waters.

#### **V. WRITTEN COMMENTS:**

Interested persons are invited to submit written comments on the proposed discharge limits and the Fact Sheet. Comments should be submitted as soon as possible, either in person or by mail to:

Glenn Robertson  
California Regional Water Quality Control Board  
Santa Ana Region  
3737 Main Street, Suite 500  
Riverside, CA 92501-3348

#### **VI. INFORMATION AND COPYING:**

Persons wishing further information may write to the above address or call Glenn Robertson of the Regional Board at (909)782-3259. Copies of the application, proposed waste discharge requirements, Fact Sheet, and other documents (other than those which the Executive Officer maintains as confidential) are available at the Regional Board office for inspection and copying between the hours of 9:00 a.m. and 3:00 p.m., Monday through Friday (excluding holidays).

#### **VII. REGISTER OF INTERESTED PERSONS:**

Any person interested in a particular application or group of applications may leave his or her name, address, and phone number as part of the file for an application.

**VIII. PUBLIC HEARING:**

The Regional Board will hold a public hearing regarding the proposed waste discharge requirements as follows:

DATE:	December 19, 2001
TIME:	9:00 a.m.
PLACE:	City of Santa Ana Civic Center 22 Civic Center Plaza Santa Ana

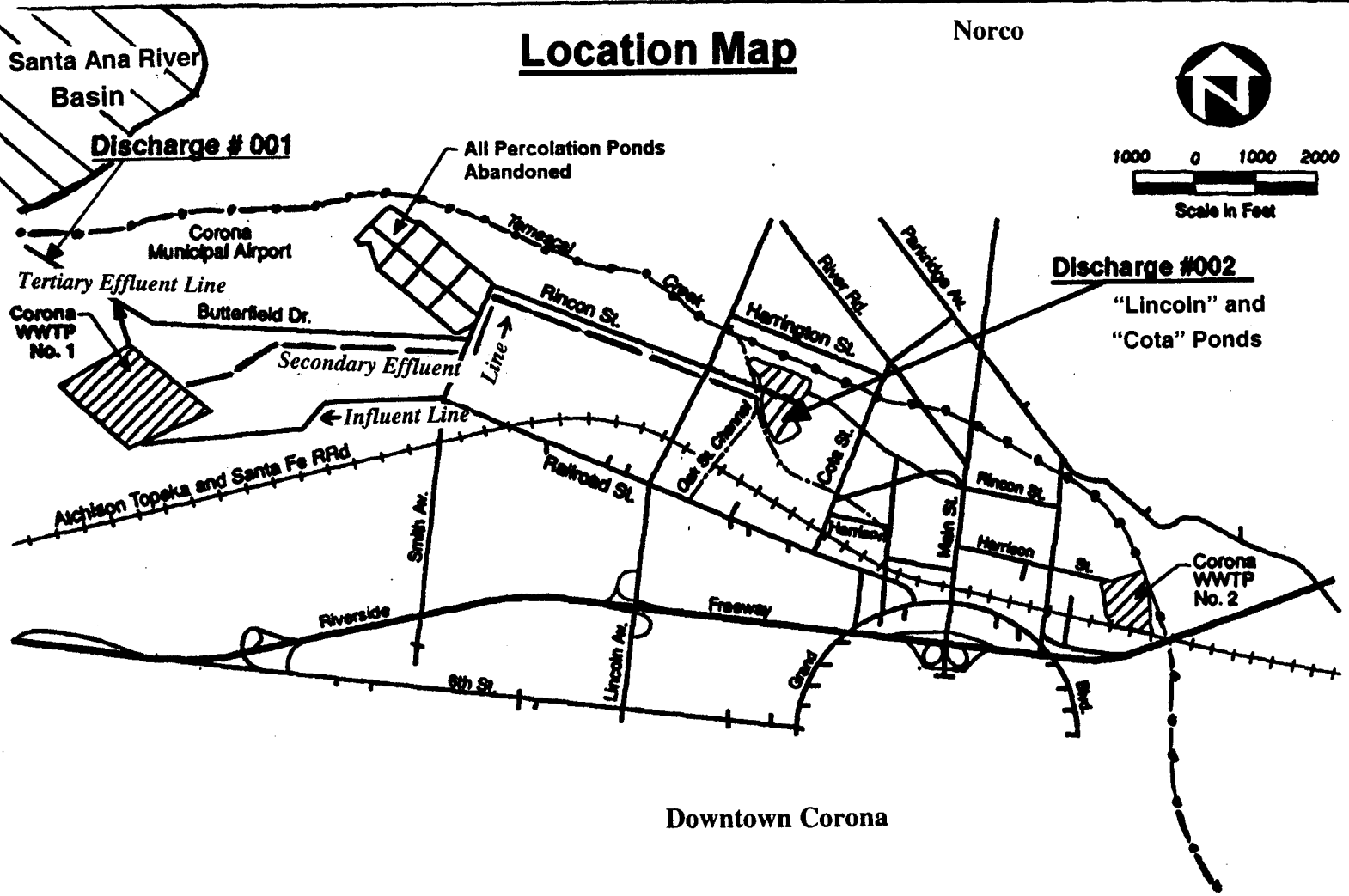
Attachment "A"

Fact Sheet

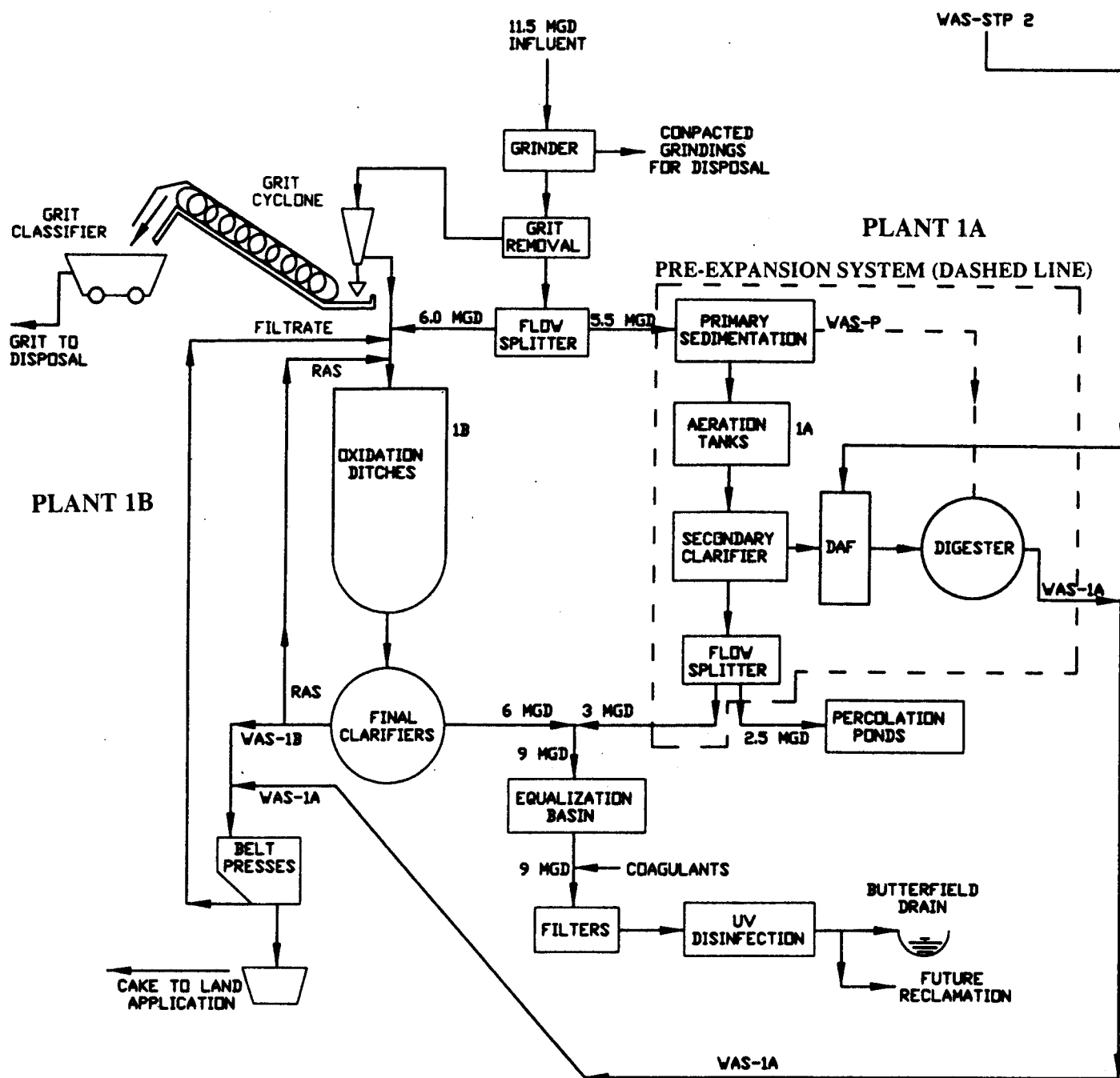
City of Corona Municipal Wastewater Treatment Plant No. 1

Order No. 01-55, NPDES No. CA8000383

Page 1 of 1



## Schematic of Treatment Plant Wastewater Flow



California Regional Water Quality Control Board  
Santa Ana Region

ORDER No. 01-55  
NPDES NO. CA8000383

Waste Discharge and Producer /User Reclamation Requirements

for the

City of Corona  
Wastewater Treatment Plant No. 1  
Riverside County



**CITY OF CORONA WASTEWATER TREATMENT PLANT NO. 1  
ORDER NO. 01-55**

<b>TABLE OF CONTENTS</b>	<b>PAGE</b>
<b>FINDINGS: .....</b>	<b>1-8</b>
<b>A. DISCHARGE SPECIFICATIONS: .....</b>	<b>9-13</b>
<b>B. TOXICITY REQUIREMENTS:.....</b>	<b>14-15</b>
<b>C. RECEIVING WATER LIMITATIONS:.....</b>	<b>15-16</b>
<b>D. WATER RECYCLING REQUIREMENTS:.....</b>	<b>16-18</b>
<b>E. PRETREATMENT REQUIREMENTS:.....</b>	<b>18-19</b>
<b>F. COMPLIANCE DETERMINATION:.....</b>	<b>20-23</b>
<b>G. REQUIRED NOTICES AND REPORTS: .....</b>	<b>23-26</b>
<b>H. PENALTIES: .....</b>	<b>27</b>
<b>I. PROVISIONS: .....</b>	<b>27-32</b>
<b>J. PERMIT RE-OPENING, REVISION, REVOCATION, AND RE-ISSUANCE: .....</b>	<b>32</b>

California Regional Water Quality Control Board  
Santa Ana Region

ORDER No. 01-55

NPDES NO. CA8000383

Waste Discharge and Producer/User Reclamation Requirements  
for the  
City of Corona  
Wastewater Treatment Plant No. 1  
Riverside County

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Board), finds that:

1. The City of Corona (hereinafter discharger) operates Wastewater Treatment Plant No. 1 (Plant No. 1), at 2205 Railroad Street in the northwestern portion of the City of Corona.
2. Order No. 98-2, NPDES No. CA8000383 regulated the discharge from Plant No. 1. Order No. 98-2 expired on July 1, 2001.
3. On August 7, 2001, the discharger submitted a complete application for a revised National Pollutant Discharge Elimination System (NPDES) permit for the discharge from Plant No. 1 of up to 9 mgd of tertiary treated effluent to Temescal Creek, Reach 1A, for the discharge of ~~2.5~~ up to 5.5 mgd of secondary treated effluent to three percolation ponds<sup>1</sup>, and for the production and use of recycled water. Cumulative flows for discharges to Serial 001 and Serial 002 will not exceed 11.5 mgd.
4. Currently, Plant No. 1 receives up to 11.5 mgd of domestic and commercial/industrial wastewater generated within the ~~western portion of the~~ City of Corona's service area<sup>2</sup>.
5. Plant No. 1 was a 5.5 million gallons per day (mgd) secondary treatment facility (now called Plant 1A). The plant was expanded in 1998 to include a new 14.5 mgd headwork structure and a new Plant 1B that consists of a 6 mgd secondary treatment train and a 9 mgd tertiary treatment train. The headwork structure consists of two channel grinders and a grit removal system. A flow splitter separates 5.5 mgd to Plant 1A and 6 mgd to Plant 1B. Plant 1B was completed in the fall of 1998.
  - a. Plant 1A<sup>3</sup> treatment train consists of primary sedimentation, aeration, secondary clarification, and sludge treatment. Approximately 3 mgd of secondary effluent may be discharged to a Plant 1B equalization basin.

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<sup>1</sup> Currently, influent volume is below capacity and all wastewater is tertiary treated and discharged to Temescal Creek. A small amount (0.08 mg/l) is used for irrigation.

<sup>2</sup> The City of Norco may discharge its wastewater to Plant No. 1 on an emergency basis.

<sup>3</sup> There is no longer any chlorine disinfection at Plant No. 1A.

- b. Plant 1B secondary treatment train consists of two parallel oxidation ditches with anoxic zones, two circular final clarifiers with sludge recovery, and an equalization basin.
  - c. Plant 1B tertiary treatment train consists of coagulation, continuous backwash sand filtration, and ultraviolet light (UV) disinfection.
6. Sludge treatment is as follows. At Plant 1A, sludge treatment consists of two dissolved air flotation (DAF) thickening units **and** three anaerobic digesters, ~~and two dewatering belt presses.~~ At Plant 1B, sludge treatment consists of two belt presses. **Digested sludge from the Plant 1A anaerobic digesters and waste activated sludge from the Plant 1B final clarifiers is dewatered by the two belt presses.** All belt press filtrate is reintroduced to the oxidation ditches and sludge cake is transported to ~~an appropriate local landfill~~ **a composter.** Plant 1 also receives sludge, ~~including cheese waste, pumped from Corona Municipal Treatment Plant No. 2.~~ **The City processes cheese waste sludge using separate facilities from biosolids, with the exception of dewatering equipment (belt presses).** Cheese waste filtrate is collected and clarified using a chlorine contact chamber that is no longer used for municipal sewage, then it is pumped to the Santa Ana Regional Interceptor Project (SARI) line.
7. Tertiary treated effluent is discharged through a subterranean pipe to the unlined Butterfield Drain, which discharges to Temescal Creek, a tributary to the Santa Ana River, Reach 3. The coordinates of the outfall (Discharge Serial 001) to Temescal Creek are Latitude N 33°53'43.94", Longitude W117°36'34.95".
8. **Up to 5.5** mgd of the secondary treated effluent wastewater at Plant 1A can be pumped one mile east to a cluster of three large percolation ponds, collectively referred to as Discharge Serial 002. One pond is located along Lincoln Avenue ("Lincoln pond") and two ponds are located at the end of Rincon Street near Cota Street ("Cota ponds"). These ponds will be used on an as-needed basis.
9. The City has discontinued the discharge of disinfected secondary effluent to ten percolation ponds located near the Corona Airport.
10. A Water Quality Control Plan (Basin Plan) became effective on January 24, 1995. The Basin Plan contains beneficial uses and water quality objectives for waters in the Santa Ana Region. The requirements contained in this Order are necessary to implement the Basin Plan.
11. Tertiary treated wastewater from the treatment plant is discharged to Temescal Creek, Reach 1A, the beneficial uses of which include:
  - a. Agricultural supply
  - b. Industrial service supply,
  - c. Groundwater recharge,
  - d. Water contact recreation,
  - e. Non-contact water recreation,

- f. Warm freshwater habitat,
  - g. Wildlife habitat,
  - h. Rare, threatened or endangered species, and
  - i. Spawning, reproduction and development.
- 12. Temescal Creek is tributary to the Santa Ana River, Reach 3, the beneficial uses of which include:
  - a. Agricultural supply,
  - b. Groundwater recharge,
  - c. Water contact recreation,
  - d. Non-contact water recreation,
  - e. Warm freshwater habitat,
  - f. Wildlife habitat, and
  - g. Rare, threatened or endangered species.
- 13. The discharge points overlie the Temescal Groundwater Subbasin, the beneficial uses of which include:
  - a. Municipal and domestic supply,
  - b. Agricultural supply,
  - c. Industrial process supply, and
  - d. Industrial service supply.
- 14. It is appropriate and necessary to control and limit the concentrations of individual mineral constituents that may be discharged from the Plant No. 1.
- 15. The limits contained in this Order for average concentrations of total dissolved solids, sodium, chloride, sulfate, and total hardness are those that the discharger may reasonably be expected to achieve using reasonable methods such as, but not limited to a source control program and the control of water supply sources.
- 16. The 1995 Basin Plan includes a wasteload allocation for discharges of total dissolved solids (TDS) to the Santa Ana River system. In conformance with the wasteload allocation, this Order specifies a TDS limit of 700 mg/l for discharges from Plant No. 1 to Temescal Creek. An alternative TDS limit, based on the TDS quality of the water supply in Corona's service area plus a 250 mg/l TDS increment, is also specified. The most restrictive of the TDS limits applies. For secondary discharges to the "Cota" and "Lincoln" ponds, this Order specifies a TDS limit of 840 mg/l based on the Basin Plan objective for the Temescal Groundwater Subbasin. Again, an alternative TDS limit for discharge to the ponds is based on the TDS quality of the water supply in Corona's service area plus a 250 mg/l TDS increment is also specified. Again, the most restrictive of the two limits applies.
- 17. The 1995 Basin Plan includes a wasteload allocation for discharges of total dissolved

solids (TDS) to the Santa Ana River system. The Basin Plan recognizes that strict compliance with TDS limits may be difficult to achieve and it describes the regulatory approach the Regional Board uses to address such situations. The Board incorporates offset provisions in waste discharge requirements whereby dischargers can participate in approved programs to offset TDS discharges in excess of specified TDS limits, provided that the discharger makes all reasonable efforts to improve the TDS quality of the water supply (and thereby, the wastewater).

18. The discharger may have difficulty achieving the 700 mg/l TDS limit and proposes to offset TDS discharges in excess of this 700 mg/l limit by:

- a. Participation in a watershed-wide TIN/TDS study. The study may lead to revised findings regarding TDS and TIN assimilative capacity and recommendations for changes to the TDS and TIN wasteload allocations and other TDS and TIN management strategies. The study will investigate appropriate inputs to the Basin Plan's groundwater quality models and possibly the structure of the models themselves. It is possible that fundamental changes in TDS and TIN objectives for groundwater subbasins may result. The TIN/TDS Task Force that is conducting the watershed-wide TIN/TDS study has evaluated historic and current ambient water quality throughout the Santa Ana River watershed. The Task Force consultants have developed recommendations for revised groundwater basin boundaries and revised water quality objectives. During the year 2002, the Regional Board expects to consider one or more Basin Plan amendments to incorporate these revised objectives and groundwater management zone boundaries for the entire watershed. Waste discharge requirements will be revised in conformance with such Basin Plan amendments; and
- b. Operating the new 10 mgd Temescal Basin Desalter plant and using its product water for Corona service area supply.

Participation in the TIN/TDS study, coupled with the use of desalter product water, is an acceptable TDS offset for the duration of the study or, if the discharger elects to discontinue its involvement, for the duration of the discharger's participation in the study. The recent completion and operation of the 10 mgd desalter, to provide an additional, high TDS quality source of supply, is one reasonable effort by the City to improve the TDS quality of its water supply and wastewater discharge.

19. The City of Corona desalter currently produces 10 mgd of supply water, much of which returns to Plant No. 1 as influent. The City has committed to accelerate expansion of the desalter's capacity with a 5 mgd increment expected to be operational by January 1, 2004. This Order requires the discharger to implement this commitment.

20. Total dissolved solids is essentially the summation of the concentrations of sodium, sulfate, chloride and total hardness (carbonates) in water. The water quality objectives for these individual mineral constituents are commensurate with the TDS objective of 700 mg/l for the Santa Ana River Reach 3. An exceedance of the TDS objective would likely result in an exceedance of one or more of the objectives for these components of TDS. Therefore, although the offset provision mentioned above specifically addresses only TDS, it is reasonable that this provision should also apply to those individual mineral components of TDS.
21. The 1995 Basin Plan includes wasteload allocations for discharges of total inorganic nitrogen<sup>4</sup> (TIN) within the Region. In conformance with the TIN wasteload allocation, this Order specifies a limit of 10 mg/l TIN for all discharges from Plant No. 1.
22. The City of Corona is a participating agency in the Santa Ana Regional Interceptor Project (SARI line). The SARI line conveys the wastes to the Orange County Sanitation District's facilities for treatment and ocean disposal. The City has a raw sewage treatment and disposal right of 3.278 mgd in the SARI line. This disposal right allows the discharger to divert to the SARI line a portion of the total influent into Plant No. 1 when and if dictated by the Plant's capacity constraints.
23. The City is implementing a recycled water master plan by diverting an annual average volume of 0.08 mgd of ultraviolet-disinfected recycled water to the grounds of nearby Butterfield Park.
24. On January 6, 1977, the State Board adopted a water recycling policy regarding the issuance of wastewater recycling requirements to primary users of recycled water. This Order incorporates requirements for the production and use of recycled water in conformance with the "Policy and Action Plan for Water Reclamation in California" adopted by the State Board and "Water Recycling Criteria" (Title 22 Division 4 California Code of Regulations (CCR)) adopted by the California Department of Health Services. The Regional Board has consulted with the Department of Health Services regarding these requirements and has incorporated its recommendations.
25. Under dry weather conditions, most of the flow in Temescal Creek and in the Santa Ana River, Reach 3, is composed of effluent discharges from municipal wastewater treatment facilities, including the discharge from this facility, and very little natural flow exists.

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*Total Inorganic Nitrogen (TIN) is the sum of the nitrate-N, nitrite-N and ammonia-N.*

26. Article 3, Section 60305, of Title 22, Division 4, Chapter 3, "Water Recycling Criteria" of the California Code of Regulations specifies that recycled water used as a source supply for nonrestricted recreational impoundments shall be disinfected tertiary recycled water that has been subjected to conventional treatment. Section 60305 also provides that disinfected tertiary recycled water that has not received conventional treatment may be used for nonrestricted recreational impoundments provided that the recycled water is monitored for the presence of pathogenic organisms in accordance with certain conditions. The degree of treatment specified represents an approximately 5-log reduction in the virus content of the water. The State Department of Health Services has determined that this degree of virus removal is necessary to protect the health of people using these impoundments for water contact recreation.
27. The Department of Health Services has developed wastewater disinfection guidelines ("Wastewater Disinfection for Health Protection", Department of Health Services, Sanitary Engineering Branch, February 1987) for discharges of wastewater to surface waters where water contact recreation (REC-1) is a beneficial use. The disinfection guidelines recommend the same treatment requirements for wastewater discharges to REC-1 waters as those stipulated in Title 22 for supply of recycled water to nonrestricted recreational impoundments, since the public health risks under both scenarios are analogous. The disinfection guidelines are based on sound science and are widely used as guidance to assure public health and beneficial use protection.
28. The Santa Ana River is not a "nonrestricted recreational impoundment," nor is "disinfected tertiary recycled water<sup>5</sup>" being used as a supply source for the River. However, except during major storms, most of the flow in the River is composed of treated municipal wastewater discharges. The River is used for water contact recreation and, accordingly, is designated REC-1 (water contact beneficial use). People recreating in the River face an exposure similar to those coming in contact with disinfected tertiary recycled water in an impoundment. Therefore, to protect the water contact recreation beneficial use and to prevent nuisance and health risk, it is necessary and appropriate to require the same degree of treatment for wastewater discharges to the River as would be required for the use of disinfected tertiary recycled water in a nonrestricted recreational impoundment.
29. As required by the Clean Water Act (CWA) and regulations adopted thereunder, the chemical specific limitations contained in this Order are designed to prevent a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Board. If more stringent applicable water quality standards are approved pursuant to Section 303 of the CWA, or amendments thereto, the Regional Board will revise and modify this Order in accordance with such more stringent standards.

<sup>5</sup>

*As defined in Section 60301.230. Article 1 of Title 22, Division 4, Chapter 3 California Code of Regulations "Water Recycling Criteria."*

30. This Order contains requirements for the implementation of an effective pretreatment program pursuant to Section 307 of the Federal Clean Water Act Parts 35 and 403 of Title 40, Code of Federal Regulations (40 CFR 35 and 40 CFR 403) and Section 2233, Title 23, California Code of Regulations.
31. Effluent limitations, national standards of performance, and toxic pretreatment effluent standards established pursuant to Section 208(b), 301, 302, 303(d), 304, 306, and 307 of the CWA, and amendments thereto, are applicable to the discharge.
32. On April 17, 1997, the State Board adopted the General Industrial Storm Water Permit, Order No. 97-03-DWQ, NPDES No. CAS000001. This General Permit implements the Final Regulations (40 CFR 122, 123, and 124) for storm water runoff published on November 16, 1990 by EPA in compliance with Section 402(p) of the Clean Water Act (CWA). All stormwater is directed toward an unlined earthen retention basin in the southeastern corner of the plant and remains onsite. Portable pumps will be used during storm events to pump the collected stormwater to the Plant 1A aeration basins. Therefore there are no direct stormwater discharges to surface waters from the site and coverage under Order No. 97-03-DWQ is not necessary for this facility.
33. On May 18, 2000, the U.S. Environmental Protection Agency issued a final rule for the establishment of Numeric Criteria for Priority Toxic Pollutants necessary to fulfill the requirements of Section 303(c)(2)(B) of the Clean Water Act for the State of California. This rule is commonly referred to as the California Toxics Rule.
34. Federal Regulations require permits to include limitations for all pollutants that are or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion of a water quality standard.
35. On March 2, 2000, the State Water Resources Control Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California. This Policy includes implementation provisions for the California Toxics Rule. The Policy specifies a methodology to determine if pollutants in the discharge are at a level that will cause, have the reasonable potential to cause, or contribute to an excursion of a water quality standard. The Policy also delineates procedures to be used to calculate appropriate limits.
36. This Order implements relevant provisions of the California Toxic Rule and the State Board Policy. Based on the methodology outlined in the State Board Policy, no priority pollutants were determined to pose a reasonable potential to cause or contribute to an excursion of a water quality standard.



37. In its January 8, 2001, guidance document, the US EPA finds that a fish tissue residue water quality criterion for methylmercury (Water Quality Criterion for the Protection of Human Health: Methylmercury - EPA-823-R-01-001, January 2001) is more appropriate than a water column based water quality criterion. The EPA further states that a fish tissue residue water quality criterion is more closely tied to the Clean Water Act goal of protecting the public health because it is based directly on the human exposure route for methylmercury. Consequently, this Order specifies a receiving water limitation in fish tissue of 0.3 mg methylmercury/kg fish in lieu of limitations for total mercury in the effluent.
38. On February 19, 1993, the U.S. Environmental Protection Agency (USEPA) issued a final rule for the use and disposal of sewage sludge (40 [Code of Federal Regulations] (CFR) Part 503). This rule requires that producers of sewage sludge meet certain reporting, handling, and disposal requirements. The State of California has not been delegated the authority to implement this program, therefore, the U.S. Environmental Protection Agency is the implementing agency.
39. In accordance with Water Code Section 13389, the issuance of waste discharge requirements for this discharge is exempt from those provisions of the California Environmental Quality Act contained in Chapter 3 (commencing with Section 21100), Division 13 of the Public Resources Code.
40. The Regional Board has considered antidegradation pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16. These waste discharge requirements do not permit any increase in the concentration and mass loading of pollutants over that currently permitted. The quality of the receiving waters is not expected to degrade as a result of this discharge. Neither the constituent concentrations of the discharge nor the mass loading of pollutants associated with the discharge are expected to adversely impact water quality or affect the beneficial uses of the receiving waters.
41. The Regional Board has notified the discharger and other interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written views and recommendations.
42. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.

**IT IS HEREBY ORDERED** that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

**A. DISCHARGE SPECIFICATIONS:**

1. The discharge of wastes containing constituent concentrations in excess of the following limits is prohibited:

- a. Biological Limitations:

<b>FOR DISCHARGE SERIAL 001<sup>6</sup></b>				
Constituent	Average Weekly Limit	Average Monthly Limit	Average Weekly Mass Emission Rate	Average Monthly Mass Emission Rate
	(mg/l)	(mg/l)	(lbs/day)	(lbs/day)
Biochemical Oxygen Demand	30	20	2252	1501
Suspended Solids	30	20	2252	1501
<b>FOR DISCHARGE SERIAL 002<sup>7</sup></b>				
Constituent	Average Weekly Limit		Average Monthly Limit	
	(mg/l)		(mg/l)	
Biochemical Oxygen Demand	45		30	
Suspended Solids	45		30	

- b. Nitrogen Limitations:

Constituent	Ammonia-Nitrogen	Total Inorganic Nitrogen
<b>FOR DISCHARGE SERIAL 001</b>		
Average Monthly Limit (mg/l)	4.5	
Average Monthly Mass Emission Rate(lbs/day)	338	
12-Month Average Limit (mg/l)	--	10
12-Month Average Mass Emission Rate (lbs/day)	--	751
<b>FOR DISCHARGE SERIAL 002</b>		
<del>Average Monthly Limit (mg/l)</del>	<del>4.5</del>	
<del>Average Monthly Mass Emission Rate (lbs/day)</del>	<del>338</del>	
12-Month Average Limit (mg/l)	--	10
<del>12-Month Average Mass Emission Rate (lbs/day)</del>	<del>--</del>	<del>751</del>

<sup>6</sup> Mass emission rates for all discharges to Discharge Serial 001 are based on 9 mgd flow.

<sup>7</sup> ~~Mass emission rates for all discharges to Discharge Serial 002 are based on 2.5 mgd flow.~~

- c. TDS/Mineral Limitations: For Discharge Serial 001, the lower concentration of the TDS limits specified in A.1.c.(1) (700 mg/l) and A.1.c.(2) shall be controlling. For Discharge Serial 002, the lower concentration of the TDS limits specified in A.1.c.(1) (840 mg/l) and A.1.c.(2) shall be controlling.

- (1) The 12-month average constituent concentrations and mass emission rates shall not exceed the values in the following table, unless:

- (a) The discharger demonstrates to the satisfaction of the Regional Board's Executive Officer that:

- i Discharges in excess of the following values are due to the quality of water supply sources utilized in the discharger's service area, and that all reasonable steps, as agreed upon by the Executive Officer, have been taken to ensure that the best quality supplies are obtained and utilized in the discharger's service area; or
- ii Discharges in excess of the following values are due solely to chemical additions in the treatment process needed to meet waste discharge requirements, and the discharger has taken all steps to optimize chemical additions so as to minimize the increases; and

- (b) The discharger implements a plan, with the approval of the Executive Officer, to offset discharges in excess of the following values. Participation in the watershed-wide TIN/TDS study (including any Basin Plan amendment to reflect revised groundwater quality objectives and subbasin boundaries, and revision of these waste discharge requirements to reflect the Basin Plan amendments) ~~coupled with~~ and the use of the discharger's desalter product water, shall constitute an acceptable offset.

<b>FOR DISCHARGE SERIAL 001</b>		
Constituent	12-Month Average Limit <sup>8</sup>	12-Month Average Mass Emission Rate
	(mg/l)	(lbs/day)
Chloride	140	10508
Sodium	110	8,257
Sulfate	150	11,259
Total Dissolved Solids	700	52,542
Total Hardness	350	26,271

<b>FOR DISCHARGE SERIAL 002</b>	
Constituent	12-Month Average Limit
	(mg/l)
Chloride	180
Sodium	120
Sulfate	160
Total Dissolved Solids	840
Total Hardness	440

- (2) The 12-month average total dissolved solids concentration shall not exceed the 12-month average total dissolved solids concentration in the water supply by more than 250 mg/l, unless:
- (a) The discharger demonstrates to the satisfaction of the Regional Board's Executive Officer that TDS discharges in excess of the 250 mg/l mineral increment are due solely to chemical additions in the treatment process needed to meet waste discharge requirements, and the discharger has taken all steps to optimize chemical additions so as to minimize the TDS increases; and
  - (b) The discharger implements a plan, with the approval of the Executive Officer, to offset TDS discharges in excess of the 250 mg/l mineral increment. Participation in the watershed-wide TIN/TDS study (including any Basin Plan amendment to reflect revised groundwater quality objectives and subbasin boundaries, and revision of these waste discharge requirements to reflect the Basin Plan amendments) ~~coupled with~~ and the use of the discharger's desalter product water, shall constitute an acceptable offset.

d. Toxic Pollutant Limitations:

<b>FOR DISCHARGE SERIAL 002</b>	
Constituent	12-Month Average Limit
	(mg/l)
Antimony	.006
Cadmium	0.01
Chromium (VI)	0.05

<b>FOR DISCHARGE SERIAL 002</b>	
Constituent	12-Month Average Limit (mg/l)
Cobalt	0.2
Copper	1.0
Iron	0.3
Lead	0.05
Manganese	0.05
Mercury	.002
Selenium	0.01
Silver	0.05

2. The discharge of wastewater to surface waters and use of recycled water shall at all times be a filtered and subsequently disinfected wastewater.
  - a. Filtered wastewater means an oxidized wastewater that meets either (1) or (2):
    - (1) Has been coagulated and passed through natural undisturbed soils or a bed of filter media pursuant to the following:
      - (a) At a rate that does not exceed 5 gallons per minute per square foot of surface area in mono, dual or mixed media gravity, upflow or pressure filtration systems, or does not exceed 2 gallons per minute per square foot of surface area in traveling bridge automatic backwash filters, based on peak dry weather design flow; and
      - (b) The turbidity of the filtered wastewater does not exceed any of the following:
        - i An average of 2 Nephelometric Turbidity Unit (NTU) within any calendar day.
        - ii 5 NTU more than 5 percent of the time within any calendar day; and
        - iii 10 NTU at any time<sup>9</sup>.

<sup>9</sup> See Section F.6., "Compliance Determination."

- (2) Has been passed through a microfiltration, ultrafiltration, nanofiltration, or reverse osmosis membrane so that the turbidity of the filtered wastewater does not exceed any of the following:
    - (a) 0.2 NTU more than 5 percent of the time within any calendar day; and
    - (b) 0.5 NTU at any time.
- b. Disinfected wastewater shall mean a filtered wastewater that has been disinfected and meets the following criteria:
  - (1) A disinfection process that, when combined with the filtration process, demonstrates inactivation and/or removal of 99.999 percent of the plaque-forming units of F-specific bacteriophage MS2, or polio virus in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for purposes of the demonstration. Where ultraviolet (UV) disinfection is used, UV disinfection shall deliver under worst operating conditions a minimum UV dose of 140 milli-watts seconds per square centimeter (mW-s/cm<sup>2</sup>) at maximum weekly flow and 100 mW-s/cm<sup>2</sup> at peak flow (maximum day), unless otherwise approved by the Department of Health Services.
  - (2) The average weekly concentration of total coliform bacteria measured in the disinfected effluent shall not exceed an MPN of 2.2 per 100 milliliters. The average weekly concentration shall be evaluated using the median of the bacteriological results of the last seven days<sup>10</sup>.
  - (3) The number of total coliform bacteria shall not exceed an MPN of 23 per 100 milliliters in more than one sample in any calendar month.
  - (4) The number of total coliform bacteria shall not exceed an MPN of 240 per 100 milliliters in any sample.
3. The monthly average biochemical oxygen demand and suspended solids concentrations of the discharge shall not be greater than fifteen percent (15%) of the monthly average influent concentrations.
4. The discharge of any substances in concentrations toxic to animal or plant life in the affected receiving water is prohibited.
5. There shall be no visible oil and grease in the discharge.
6. The pH of the discharge shall be within 6.5 and 8.5 pH<sup>11</sup>.

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<sup>10</sup> See Section F.7., "Compliance Determination."

<sup>11</sup> See Section F.5., "Compliance Determination."

**B. TOXICITY REQUIREMENTS:**

1. This Order contains no numeric limitation for toxicity. However, the discharger shall conduct chronic toxicity monitoring as specified in Monitoring and Reporting Program (M&RP) No. 01-55.
2. The discharger shall implement the accelerated monitoring as specified in Section D.4. of the M&RP No. 01-55 when the result of any single chronic toxicity test of the effluent exceeds 1.0 TUc.
3. The discharger shall develop an Initial Investigation Toxicity Reduction Evaluation (IITRE) work plan that describes the steps the discharger intends to follow if required by Toxicity Requirement No. 4, below. The work plan shall include at a minimum:
  - a. A description of the investigation and evaluation techniques that will be used to identify potential causes/sources of the exceedance, effluent variability, and/or efficiency of the treatment system in removing toxic substances. This shall include a description of an accelerated chronic toxicity testing program.
  - b. A description of the methods to be used for investigating and maximizing in-house treatment efficiency and good housekeeping practices.
  - c. A description of the evaluation process to be used to determine if implementation of a more detailed TRE/TIE is necessary.
4. The discharger shall implement the IITRE work plan whenever the results of chronic toxicity tests of the effluent exceed:
  - a. A two month median value of 1.0 TUc for survival or reproduction endpoint or,
  - b. Any single test value of 1.7 TUc for survival endpoint.
5. The discharger shall develop a detailed Toxicity Reduction Evaluation and Toxicity Identification Evaluation (TRE/TIE) work plan that shall describe the steps the discharger intends to follow if the implemented IITRE fails to identify the cause of, or rectify, the toxicity.

The discharger shall use as guidance, at a minimum, EPA manuals EPA/600/2-88/070 (industrial), EPA/600/4-89-001A (municipal), EPA/600/6-91/005F (Phase I), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III) to identify the cause(s) of toxicity. If during the life of this Order the aforementioned EPA manuals are revised or updated, the revised/updated manuals may also be used as guidance. The detailed TRE/TIE work plan shall include:

- a. Further actions to investigate and identify the cause of toxicity;
  - b. Actions the discharger will take to mitigate the impact of the discharge and to prevent the recurrence of toxicity; and
  - c. A schedule for these actions.
6. The discharger shall implement the TRE/TIE workplan if the IITRE fails to identify the cause of, or rectify, the toxicity, or if in the opinion of the Executive Officer the IITRE does not adequately address an identified toxicity problem.
7. The discharger shall assure that adequate resources are available to implement the required TRE/TIE.

**c. RECEIVING WATER LIMITATIONS:**<sup>12</sup>

1. The discharge of wastes shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Board or State Board, as required by the Clean Water Act and regulations adopted thereunder.
2. The discharge shall not cause any of the following:
  - a. Coloration of the receiving waters which causes a nuisance or adversely affects beneficial uses.
  - b. Deposition of oil, grease, wax or other materials in the receiving waters in concentrations which result in a visible film or in coating objects in the water, or which cause a nuisance or affect beneficial uses.
  - c. An increase in the amounts of suspended or settleable solids in the receiving waters which will cause a nuisance or adversely affect beneficial uses as a result of controllable water quality factors.
  - d. Taste or odor producing substances in the receiving waters at concentrations which cause a nuisance or adversely affect beneficial uses.
  - e. The presence of radioactive materials in the receiving waters in concentrations which are deleterious to human, plant or animal life.
  - f. The depletion of the dissolved oxygen concentration below 5.0 mg/l.

<sup>12</sup>

*Receiving water limitations are specific interpretations of water quality objectives from applicable water quality control plans. As such they are a required part of this Order. A receiving water condition not in conformance with any of these receiving water limitations, is not necessarily a violation of this Order. The Regional Board may require an investigation to determine the cause and culpability prior to asserting a violation has occurred, or requiring that corrective action be taken.*



- g. The temperature of the receiving waters to be raised above 90°F (32°C) during the period of June through October, or above 78°F (26°C) during the rest of the year.
  - h. The concentration of pollutants in the water column, sediments, or biota to adversely affect the beneficial uses of the receiving water. The discharge shall not result in the degradation of inland surface water communities and populations, including vertebrate, invertebrate, and plant species.
- 3. Pollutants not specifically mentioned and limited in this Order shall not be discharged at levels that will bioaccumulate in aquatic resources to levels which are harmful to human health.
- 4. The discharge shall not contain constituent concentrations of mercury that will result in the bioaccumulation of methylmercury in fish flesh tissue greater than 0.3 milligram methylmercury/kilogram fish.

**D. WATER RECYCLING REQUIREMENTS:**

- 1. Recycling of treated wastewater is prohibited when any of the following conditions occur:
  - a. Effluent total coliform MPN is greater than 240/100 milliliters.
  - b. Turbidity of treated effluent is greater than 10 NTU.
- 2. The discharger shall be responsible for assuring that recycled water is delivered and utilized in conformance with this Order, the recycling criteria contained in Title 22, Division 4, Chapter 3, Sections 60301 through 60355, California Code of Regulations, and the "Guidelines for Use of Reclaimed Water" by the California Department of Health Services. The discharger shall conduct periodic inspections of the facilities of the recycled water users to monitor compliance by the users with this Order.
- 3. The discharger shall establish and enforce Rules and Regulations for Recycled Water users, governing the design and construction of recycled water use facilities and the use of recycled water in accordance with the uniform statewide recycling criteria established pursuant to the California Water Code Section 13521.
  - a. Use of recycled water by the discharger shall be consistent with its Rules and Regulations for Recycled Water Use.
  - b. Any revisions made to the Rules and Regulations shall be subject to the review of the Regional Board, the State Department of Health Services, and the County of Riverside Department of Environmental Health. The revised Rules and Regulations or a letter certifying that the discharger's Rules and Regulations contain the updated provisions in this Order, shall be submitted to the Regional

Board within 60 days of adoption of this Order by the Regional Board.

4. The discharger shall, within 60 days of the adoption of this Order, review and update if necessary, its program to conduct compliance inspections of recycled water reuse sites. Inspections shall determine the status of compliance with the discharger's Rules and Regulations for Recycled Water Use.
5. The storage, delivery, or use of recycled water shall not individually or collectively, directly or indirectly, result in a pollution or nuisance, or adversely affect water quality, as defined in the California Water Code. The use of recycled water shall be in conformance with the wastewater recycling plan specified in the Basin Plan (Table 5-7). Proposed large scale wastewater recycling activities which are not in conformance with the Basin Plan shall be considered for approval by the Regional Board on a case by case basis (see also Section D.7., below).
6. Prior to delivering recycled water to any new user, the discharger shall submit to the Regional Board, the California Department of Health Services and the Riverside County Health Department a report containing the following information for review and approval:
  - a. The average number of persons estimated to be served at each use site area on a daily basis.
  - b. The specific boundaries of the proposed use site area including a map showing the location of each facility, drinking water fountain, and impoundment to be used.
  - c. The person or persons responsible for operation of the recycled water system at each use area.
  - d. The specific use to be made of the recycled water at each use area.
  - e. The methods to be used to assure that the installation and operation of the recycled system will not result in cross connections between the recycled water and potable water piping systems. This shall include a description of the pressure, dye or other test methods to be used to test the system.
  - f. Plans and specifications which include following:
    - (1) Proposed piping system to be used.
    - (2) Pipe locations of both the recycled and potable systems.
    - (3) Type and location of the outlets and plumbing fixtures that will be accessible to the public.
    - (4) The methods and devices to be used to prevent backflow of recycled water into the potable water system.
    - (5) Plan notes relating to specific installation and use requirements.

7. Proposed large scale recycling activities which are not in conformance with the Basin Plan shall be initiated only with the prior approval of the Regional Board. The Executive Officer may require the submission of additional information in order to evaluate the water quality impacts of the proposal.
8. An on-site supervisor responsible for the operation of the recycled water distribution system shall be designated by the user. The supervisor shall be responsible for enforcing this Order, prevention of potential hazards, the installation, operation and maintenance of the distribution system, maintenance of the distribution and irrigation system plans in "as-built" form, and for the distribution of the recycled wastewater in accordance with this Order.

**E. PRETREATMENT REQUIREMENTS:**

1. The discharger shall update as necessary and appropriate the contractual agreements with all governmental agencies<sup>13</sup>. The contractual agreements shall give the discharger the authority to implement and enforce the EPA approved pretreatment program within the sewer service areas of the treatment facility. The discharger shall assure that any other steps necessary to provide this implementation and enforcement authority (e.g. adoption of ordinances, etc.) are taken by all governmental agencies. If a governmental agency has an EPA approved pretreatment program for any portion of the service area of the treatment facility, the discharger's pretreatment program shall contain provisions ensuring that that governmental agency's program is implemented. In the event that any contributory agency fails to effectively implement its individual EPA approved pretreatment program, the discharger shall implement and enforce its approved program within that agency's service area.
2. The discharger shall ensure that the POTW<sup>14</sup> pretreatment program for all contributory agencies to the treatment facility are implemented and enforced. The discharger shall be responsible and liable for the performance of all Control Authority pretreatment requirements contained in 40 CFR 403, including any subsequent regulatory revisions to Part 403. Where Part 403 or subsequent revisions place mandatory actions upon the discharger as Control Authority but does not specify a timetable for completion of the actions, the discharger shall submit for approval of the Regional Board's Executive Officer, a schedule for implementation of the required actions and shall implement the approved schedule. The schedule for implementation shall be submitted within six months from the date that such mandatory actions are established. For violations of pretreatment requirements, the discharger shall be subject to enforcement actions, penalties, fines and other remedies by the EPA, or other appropriate parties, as provided in the CWA, as amended (33 USC 1351 et seq.). The EPA or the Regional Board may also initiate enforcement action against an industrial user (IU) for non-compliance with applicable standards and requirements as provided in the CWA.

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<sup>13</sup> *Member agencies and sewerage agencies discharging wastewater into the facility.*

<sup>14</sup> *Publicly owned treatment works.*

3. The discharger shall enforce the requirements promulgated under Sections 307(b), 307(c), 307(d), and 402(b) of the CWA with timely, appropriate and effective enforcement actions. The discharger shall cause IUs subject to the Federal Categorical Standards to achieve compliance no later than the date specified in those requirements or, in the case of a new IU, upon commencement of the discharge.
4. The discharger shall perform the pretreatment functions as required in 40 CFR Part 403 including, but not limited to:
  - a. Enforce the pretreatment requirements under 40 CFR 403.5 and 403.6;
  - b. Implement the necessary legal authorities as provided in 40 CFR 403.8(f)(1);
  - c. Implement the programmatic functions as provided in 40 CFR 403.8(f)(2);
  - d. Publish a list of significant non-compliance as required by 40 CFR 403.8(f)(2)(vii), and
  - e. Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR 403.8(f)(3).
5. The following wastes shall not be introduced into the treatment works:
  - a. Wastes which create a fire or explosion hazard in the treatment works;
  - b. Wastes which will cause corrosive structural damage to treatment works, but, in no case, wastes with a pH lower than 5.0 unless the works are designed to accommodate such wastes;
  - c. Wastes at a flow rate and/or pollutant discharge rate which is excessive over relatively short time periods so that there is a treatment process upset and subsequent loss of treatment efficiency;
  - d. Solid or viscous wastes in amounts which would cause obstruction to the flow in sewers or otherwise interfere with the proper operation of the treatment works.
6. The discharger shall ensure compliance with any existing or future pretreatment standard promulgated by EPA under Section 307 of the CWA or amendments thereto for any discharge to the municipal system.
7. The discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement.
8. The discharger shall require each user not in compliance with any pretreatment standard to submit periodic notice (over intervals not to exceed nine months) of progress toward compliance with applicable toxic and pretreatment standards developed pursuant to the CWA or amendments thereto. The discharger shall forward a copy of such notice to the Regional Board and to the EPA Regional Administrator.

**F. COMPLIANCE DETERMINATION:**

1. The "maximum daily" concentration is defined as the measurement made on any single grab sample or composite sample.
2. Compliance with average weekly and monthly discharge limitations specified under Discharge Specifications A.1.a., and A.1.b. shall be determined from the average of the analytical results of all samples collected during a calendar week or month, respectively. Where a calendar week overlaps two different months, compliance shall be determined for the month in which the week ends.
3. Compliance with the 12-month average limit under Discharge Specifications A.1.b and A.1.c. shall be determined by the arithmetic mean of the last twelve monthly averages.
4. The discharger shall be deemed out of compliance with an effluent limitation if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation.
  - a. Until June 1, 2002, compliance determination shall be based on the practical quantitation levels<sup>15</sup> (PQL) specified in Attachment "A" of M&RP No. 01-55 or on the lower reporting level that may reasonably be achieved by the discharger with prior approval by the Executive Officer of the Regional Board.
  - b. As of June 1, 2002, compliance determination shall be based on the quantification levels specified in Attachment "B" of the Monitoring and Reporting Program No. 01-55, unless an alternative minimum level<sup>16</sup> (ML) is approved by the Regional Board's Executive Officer.
  - c. When determining compliance with an average monthly limit and more than one sample result is available in a month, the discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of detected but not quantified (DNQ) or not detected (ND). In those cases, the discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:
    - (1) The data set shall be ranked from low to high, reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

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<sup>15</sup> *PQL is the lowest concentration of a substance which can be determined within  $\pm 20$  percent of the true concentration by 75 percent of the analytical laboratories tested in a performance evaluation study. Alternatively, if performance data are not available, the PQL is the method detection limit (MDL)  $\times 5$  for carcinogens and MDL  $\times 10$  for noncarcinogens.*

<sup>16</sup> *Minimum level is the concentration at which the entire analytical system must give a recognizable signal and acceptable point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.*

- (2) The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ. If a sample result, or the arithmetic mean or median of multiple sample results, is below the reported ML, and there is evidence that the priority pollutant is present in the effluent above an effluent limitation and the discharger conducts a pollutant minimization program (PMP)<sup>17</sup> (as described in Section I.7.), the discharger shall not be deemed out of compliance.
5. Pursuant to 40 CFR 401.17, the discharger shall be in compliance with the pH limitation specified in this Order (Discharge Specifications A.6., above), provided that both of the following conditions are satisfied:
  - a. The total time during which the pH values are outside the required range of 6.5-8.5 pH values shall not exceed 7 hours and 26 minutes in any calendar month; and
  - b. No individual excursion from the range of pH values shall exceed 60 minutes.
6. Exceedances of the “10 NTU at any time” turbidity requirement referenced in Discharge Specifications A.2.a.(1)(b)iii. shall not be considered a violation of these waste discharge requirements if such exceedance does not exceed a duration of one minute. The discharger shall not be considered to be in violation of this requirement if the apparent exceedance was caused by interference with, or malfunction of, the monitoring instrument. If the discharger is using a properly operating backup turbidimeter, the reading of the backup turbidimeter shall be considered in determining whether there has been an actual noncompliance.
7. Compliance with the weekly average total coliform limit expressed in Discharge Specification A.2.b.(2) shall be based on a running median of the test results from the previous 7 days. To comply with the weekly average limit, the 7-day median MPN must not exceed 2.2 per 100 milliliters on any day during the week. However, only one violation is recorded for each week, even if the 7-day median MPN value is greater than 2.2 for more than one day in the week.

<sup>17</sup>

*The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation.*

8. Compliance determinations shall be based on available analyses for the time interval associated with the effluent limitation. Where only one sample analysis is available in a specified time interval (e.g., monthly or weekly average), that sample shall serve to characterize the discharge for the entire interval. If quarterly sample results show noncompliance with the average monthly limit and that sample result is used for compliance determinations for each month of the quarter, then three separate violations of the average monthly limit shall be deemed to have occurred.
9. Compliance with a single effluent limitation which applies to a group of chemicals (e.g., PCBs), based on a single sample shall be determined by considering the concentrations of individual members of the group to be zero if the analytical response for the individual chemical falls below the method detection limit (MDL or PQL) for that chemical.
10. For non-priority pollutants, compliance based on a single sample analysis shall be determined where appropriate, as described below:
  - a. When the effluent limitation is greater than or equal to the PQL, compliance shall be determined based on the effluent limitation in either single or multiple sample analyses.
  - b. When the effluent limitation is less than the PQL, compliance determinations based on analysis of a single sample shall only be undertaken if the concentration of the constituent of concern in the sample is greater than or equal to the PQL.
11. For non-priority pollutants, the discharge shall be considered to be in compliance with an effluent limitation which is less than or equal to the PQL specified in Attachment "A" of M&RP No. 01-55 if the arithmetic mean of all test results for the monitoring period is less than the constituent effluent limitation. Analytical results that are less than the specified PQL shall be assigned a value of zero.
12. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with permit effluent limitations because of factors beyond the reasonable control of the discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper action. A discharger that wishes to establish the affirmative defense of an upset in an action brought for non-compliance shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - a. an upset occurred and that the discharger can identify the cause(s) of the upset;
  - b. the permitted facility was being properly operated at the time of the upset;
  - c. the discharger submitted notice of the upset as required in Section G.15., below;
  - d. the discharger complied with any remedial measures required under Section I.9., below.



No determination made before an action for noncompliance, such as during administrative review of claims that noncompliance was caused by an upset, is final administrative action subject to judicial review. In any enforcement proceeding, the discharger seeking to establish the occurrence of an upset has the burden of proof.

**G. REQUIRED NOTICES AND REPORTS:**

1. Reporting Provisions:
  - a. All applications, reports, or information submitted to the Regional Board shall be signed and certified in accordance with 40 CFR 122.22 except as otherwise specified by the Regional Board's Executive Officer.
  - b. The discharger shall furnish, within a reasonable time, any information the Regional Board or EPA may request to determine compliance with this Order or whether cause exists for modifying, revoking and reissuing, or terminating this Order. The discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.
  - c. Except for data determined to be confidential under Section 308 of the CWA, all reports prepared in accordance with the terms of this Order shall be available for public inspection at the offices of the Regional Board and the Regional Administrator of EPA. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statements on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA and Section 13387 of the California Water Code.
2. By March 1, 2002, the discharger shall notify the Executive Officer of its continuous involvement with the comprehensive methylmercury investigation program currently being conducted by a group of Santa Ana River system dischargers. If the discharger discontinues its involvement with this comprehensive program, the discharger shall, within 60 days of that date, submit for the approval of the Executive Officer its plan for the annual testing of methylmercury levels in fish flesh samples collected from the Santa Ana River, upstream of, at, and downstream of the point of the River's confluence with the existing flood control channel where treatment plant treated effluent is discharged. Upon approval, the discharger shall implement the plan.
3. By March 1, 2002, the discharger shall submit an updated written description of electrical power failure safeguards. Such safeguards may include alternate power sources, standby generators, retention capacity, operating procedures, or other means. The description of the safeguards provided shall include an analysis of the frequency, duration, and impact of power failures experienced over the past year(s) of treatment plant operation on effluent quality and on the capability of the discharger to comply with the requirements of this Order. Deficiencies in present safeguards must be identified together with a plan for any necessary corrective actions. The adequacy of the safeguards and the corrective action plan (if necessary) is subject to the approval of the Executive Officer.

4. By March 1, 2002, the discharger shall submit an updated technical report on the discharger's preventive (failsafe) and contingency (response and cleanup) plans for controlling accidental discharges and for minimizing the effect of such events. This technical report may be combined with that required under Section G.3., above. The technical report shall:
  - a. Identify the possible sources of accidental loss, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment outage, and failure of process equipment, tanks, and pipes should be considered.
  - b. Evaluate the effectiveness of present facilities and procedures and state when they become operational.
  - c. Describe any new facilities and procedures needed. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational.
  - d. Describe proposed and completed training programs and schedules to train and familiarize plant operating personnel with the discharger's preventive (failsafe) and contingency (response and cleanup) plans for controlling accidental discharges and for minimizing the effect of such events.
5. By March 1, 2002, the discharger shall submit a copy of the Initial Investigation Toxicity Reduction Evaluation work plan specified in Toxicity Requirement B.3. of this Order.
6. By March 1, 2002, the discharger shall submit a copy of the TRE/TIE work plan specified in Toxicity Requirement B.5. of this Order.
7. By March 1, 2002, the discharger shall submit for approval by the Executive Officer, a report which details the manner in which sampling, monitoring and reporting will be performed as required in this Order.
8. The discharger shall give advance notice to the Regional Board of any planned physical alterations or additions to the permitted facility or changes in operation or activity that may result in noncompliance with these waste discharge requirements.
9. The discharger shall provide adequate notice to the Regional Board of:
  - a. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to Sections 301 or 306 of the CWA if it were directly discharging those pollutants.<sup>18</sup>

<sup>18</sup>

*Adequate notice shall include information on the quality and quantity of effluent introduced, and any anticipated impact of the change on the quantity or quality of the discharger's effluent and/or sludge.*

- b. Any change in the volume or character of pollutants being introduced by an existing or new source into the treatment facility that will cause or threaten to cause a violation of this Order.
  - c. Any planned changes in the discharger's biosolids use or disposal practice, or provision of additional disposal sites not reported during the permit application process.
  - d. Any proposed change in the character, location, or method of disposal of the discharge, or any proposed change in ownership of the facility.
  - e. All instances of noncompliance. Reports of noncompliance shall be submitted with the discharger's next scheduled self-monitoring report or earlier, as specified in this Order, or if requested by the Executive Officer, or if required by an applicable standard for biosolids use and disposal.
10. The discharger shall file with the Regional Board within sixty days of adoption of this Order, the revised Rules and Regulations or letter as specified in Water Recycling Requirements D.3.b.
11. The discharger shall file with the Regional Board the documents required in Section D.5., above, prior to delivering recycled water to any new user.
12. The discharger shall file a written report with the Regional Board within ninety (90) days after the average dry-weather waste flow for any month equals or exceeds 75 percent of the design capacity of the waste treatment and/or disposal facilities. The discharger's senior administrative officer shall sign a letter which transmits that report and certifies that the policy-making body is adequately informed about it. The report shall include:
- a. Average daily flow for the month, the date on which the instantaneous peak flow occurred, the rate of that peak flow, and the total flow for the day.
  - b. The discharger's best estimate of when the average daily dry-weather flow rate will equal or exceed the design capacity of the treatment facilities.
  - c. The discharger's intended schedule for studies, design, and other steps needed to provide additional capacity for the waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units.
13. The discharger shall file with the Regional Board a Report of Waste Discharge at least 180 days before making any material change in the character, location, or volume of the discharge. A material change includes, but is not limited to, the following:
- a. Adding a major industrial waste discharge to a discharge of essentially domestic sewage, or adding a new process or product by an industrial facility resulting in a change in the character of the waste.
  - b. Significantly changing the disposal method or location, such as changing the

- disposal to another drainage area or water body.
- c. Significantly changing the method of treatment.
  - d. Increasing the treatment plant design capacity beyond that specified in this Order.
  - e. The discharger shall submit a Title 22 Engineering Report for review and approval by the Department of Health Services before making any of the material changes identified above. The Engineering Report shall be in compliance with the California Code of Regulations, Title 22, Chapter 3.
14. The discharger shall immediately report any condition related to the discharger's collection, treatment or disposal facilities that may endanger human health or the environment including any unauthorized discharge not regulated by this Order of treated, partially treated, or untreated wastewater from the discharger's collection, treatment, or disposal system in excess of 1000 gallons. All available information concerning the condition and/or unauthorized discharge shall be provided to the Executive Officer or the Executive Officer's designee (909-782-4130) and the Office of Emergency Services (1-800-852-7550), as soon as the discharger becomes aware of the circumstances. A written report shall be submitted within 5 days and shall contain a description of the condition and its cause; the duration of the condition, including exact dates and times, and, if the condition has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the condition, with a schedule for their implementation. The following shall be included as information that must be reported within 24 hours under this paragraph:
- a. Any unanticipated bypass that exceeds any requirement of this Order.
  - b. Any upset that exceeds any requirement of this Order.
  - c. Any violation of a maximum daily discharge limitation for any of the pollutants listed in this Order.
  - d. Any unauthorized discharge not regulated by this Order of treated, partially treated, or untreated wastewater resulting from the intentional or unintentional diversion of wastewater from a collection, treatment or disposal system.
  - e. The Executive Officer or the Executive Officer's designee may waive the above required written report on a case-by-case basis.

Discharges of less than 1,000 gallons that do not endanger human health or the environment shall be reported to the Executive Officer's designee no later than the last day of the month following the month the discharges occurred.

**H. PENALTIES:**

1. Violation of any of the provisions of the NPDES program or of any of the provisions of this Order may subject the violator to any of the penalties described under Section 309(c) of the CWA, or any subsequent amendments to Section 309(c). The violator may be subjected to any combination of the penalties described herein at the discretion of the prosecuting authority; however, only one kind of penalty may be applied for each kind of violation.
2. The CWA provides that any person who violates any portion of this Order implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the CWA, or any order requirement or limitation implementing any such sections in this Order, is subject to a civil penalty not to exceed \$25,000 per day for each violation. The CWA provides that any person who willfully or negligently violates this Order with regard to these sections of the CWA is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than 1 year, or both. Any person who knowingly violates a provision implementing these sections is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment of not more than 3 years, or both.
3. The CWA provides that any person who knowingly falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Order shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 2 years per violation, or by both.
4. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 2 years per violation, or by both.
5. The California Water Code provides that any person who violates an order of the Regional Board is subject to civil penalties of up to \$25,000 per day of violation, and when the violation involves the discharge of pollutants, additional civil penalties of up to \$25 per gallon.

**I. PROVISIONS:**

1. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the CWA, or amendments thereto, that shall become effective 10 days after the date of adoption, provided the Regional Administrator of the EPA has no objection. If the Regional Administrator objects to its issuance, this Order shall not serve as an NPDES permit until such objection is withdrawn.
2. Neither the treatment nor the discharge of waste shall create, or threaten to create, a nuisance or pollution as defined by Section 13050 of the California Water Code.

3. This Order expires December 1, 2006 and the discharger must file a Report of Waste Discharge in accordance with Title 23, Division 3, Chapter 9 of the California Code of Regulations not later than 180 days in advance of this expiration date. The Report of Waste Discharge shall serve as the application for issuance of new waste discharge requirements.
4. The average daily dry weather discharge into the ponds and into Temescal Creek shall not exceed a total of 11.5 mgd.
5. The discharger shall comply with M&RP No. 01-55. This monitoring and reporting program may be modified by the Executive Officer at any time during the term of this Order to include an increase in the number of parameters to be monitored, the frequency of the monitoring or the number and size of samples to be collected. Any such modifications may be reduced back to the levels specified in the original monitoring and reporting program at the discretion of the Executive Officer.
6. The discharger shall conduct a controlled and intensive monitoring program for bis (2-ethylhexyl) phthalate for one year until December 1, 2002, using methods, equipment and processes that will prevent contamination of effluent samples during sampling and testing and assure reliability of testing results. The discharger's testing laboratory shall be able to achieve a minimum detection level of 5 micrograms per liter for quantifying bis (2-ethylhexyl) phthalate concentrations in the effluent.
7. The discharger shall maintain a copy of this Order at the site so that it is available to site operating personnel at all times. Key operating personnel shall be familiar with its content.
8. The discharger shall expand the City of Corona's desalter facility to process at least an average additional 5 mgd flow. Beginning on January 1, 2004, unless a revised schedule is approved by the Regional Board's Executive Officer, the desalter shall be operated at the committed full capacity of 15 mgd, unless operation at reduced capacity is necessary for facility inspection, maintenance, and repair.
9. The discharger shall conduct a Pollutant Minimization Program (PMP) when there is evidence that the priority pollutant is present in the effluent above an effluent limitation (e.g., sample results reported as detected but not quantified (DNQ) when the effluent limitation is less than the MDL, sample results from analytical methods more sensitive than those methods included in this Order, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) and either: (i) A sample result is reported as DNQ and the effluent limitation is less than the reported ML; or (ii) A sample result is reported as ND and the effluent limitation is less than the MDL. The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Regional Board:

- a. An annual review and semi-annual monitoring of potential sources of the reportable priority pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;
  - b. Quarterly monitoring for the reportable priority pollutant(s) in the influent to the wastewater treatment system;
  - c. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutant(s) in the effluent at or below the effluent limitation;
  - d. Implementation of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy; and
  - e. An annual status report that shall be sent to the Regional Board including:
    - (1) All PMP monitoring results for the previous year;
    - (2) A list of potential sources of the reportable priority pollutant(s);
    - (3) A summary of all actions undertaken pursuant to the control strategy; and
    - (4) A description of actions to be taken in the following year.
10. The discharger must comply with all of the requirements of this Order. Any violation of this Order constitutes a violation of the California Water Code and may constitute a violation of the CWA and its regulations, and is grounds for enforcement action, termination of this Order, revocation and re-issuance of this Order, denial of an application for re-issuance of this Order; or a combination thereof.
11. The discharger shall take all reasonable steps to:
  - a. minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.
  - b. minimize any adverse impact to receiving waters resulting from noncompliance with any requirements specified in this Order, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.
12. The discharger shall provide safeguards to assure that should there be reduction, loss, or failure of electric power, the discharger will comply with the requirements of this Order.
13. The discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control including sludge use, disposal facilities, and related appurtenances which are installed or used by the discharger to achieve compliance with this Order. Proper operation and maintenance includes adequate laboratory controls, appropriate quality assurance procedures, effective performance, adequate funding, adequate staffing and training, and adequate process controls. This provision requires the operation of back up or auxiliary facilities or similar systems which are installed by a discharger only when the operation is necessary to achieve compliance with the requirements of this Order.

14. No discharge to the percolation ponds (Discharge Serial 002) shall rise above a two-foot freeboard.
15. The discharger shall update as necessary, the "Operation and Maintenance Manual (O&M Manual)" which it has developed for the treatment plant to conform with latest plant changes and requirements. The O&M Manual shall be readily available to operating personnel onsite. The O&M Manual shall include the following:
  - a. Description of the treatment plant table of organization showing the number of employees, duties and qualifications and plant attendance schedules (daily, weekends and holidays, part-time, etc). The description should include documentation that the personnel are knowledgeable and qualified to operate the treatment facility so as to achieve the required level of treatment at all times.
  - b. Detailed description of safe and effective operation and maintenance of treatment processes, process control instrumentation and equipment.
  - c. Description of laboratory and quality assurance procedures.
  - d. Process and equipment inspection and maintenance schedules.
  - e. Description of safeguards to assure that, should there be reduction, loss, or failure of electric power, the discharger will be able to comply with requirements of this Order.
  - f. Description of preventive (fail-safe) and contingency (response and cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. These plans shall identify the possible sources (such as loading and storage areas, power outage, waste treatment unit failure, process equipment failure, tank and piping failure) of accidental discharges, untreated or partially treated waste bypass, and polluted drainage.
16. The discharger's wastewater treatment plant shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to Title 23, Division 3, Chapter 14, California Code of Regulations.
17. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.
18. The provisions of this Order are severable, and if any provision of this Order, or the application of any provisions of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order shall not be affected thereby.
19. The filing of a request by the discharger for modification, revocation and re-issuance, or termination of this Order or a notification of planned changes or anticipated noncompliance does not stay any requirements of this Order.
20. The requirements prescribed herein do not authorize the commission of any act causing



injury to the property of another, nor protect the discharger from liabilities under federal, state, or local laws, nor guarantee the discharger a capacity right in the receiving waters.

21. This Order does not convey any property rights of any sort, or any exclusive privilege.
22. This Order is not transferable to any person except after notice to, and approval by the Executive Officer. The Regional Board may require modification or revocation and re-issuance of this Order to change the name of the discharger and incorporate such other requirements as may be necessary under the CWA.
23. Collected screenings, sludge, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Regional Board's Executive Officer.
24. If the discharger demonstrates a correlation between the biological oxygen demand (BOD) and total organic carbon (TOC) concentrations in the effluent to the satisfaction of the Executive Officer, compliance with the BOD limits contained in this Order may be determined based on analyses of the TOC of the effluent.
25. In the event of any change in control or ownership of land or waste discharge facility presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Regional Board.
26. It shall not be a defense for a discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the requirements of this Order.
27. Bypass (the intentional diversion of waste streams from any portion of a treatment facility or collection system) is prohibited unless it is permitted under the terms of this Order. The Regional Board may take enforcement action against the discharger for unpermitted bypass unless:
  - a. There were no feasible alternative to bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that could occur during normal periods of equipment down time or preventive maintenance; and
  - b. The discharger submitted a notice to the Regional Board at least ten days in advance of the need for a bypass. The discharger may allow a bypass to occur that does not cause effluent limitations to be exceeded, but only if the by-pass is required for essential maintenance to assure efficient operation, and neither effluent nor receiving water limitations are exceeded. In such a case, the above bypass conditions are not applicable. The discharger shall promptly notify the Regional Board and the EPA within 24 hours of each such bypass.

28. The Regional Board, EPA, and other authorized representatives shall be allowed:
- a. Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the requirements of this Order;
  - b. Access to copy any records that are kept under the requirements of this Order;
  - c. To inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
  - d. To photograph, sample and monitor for the purpose of assuring compliance with this Order, or as otherwise authorized by the CWA.

**J. PERMIT RE-OPENING, REVISION, REVOCATION, AND RE-ISSUANCE:**

1. This Order may be modified, revoked and reissued, or terminated for cause.
2. This Order may be reopened to address any changes in State or federal plans, policies or regulations that would affect the quality requirements for the discharges.
3. This Order may be reopened to include effluent limitations for pollutants determined to be present in the discharge in concentrations that pose a reasonable potential to cause or contribute to violations of water quality standards.
4. This Order may be reopened to include an appropriate bioaccumulation based effluent limit for mercury when scientifically defensible guidance is developed to translate methylmercury in fish tissue to total mercury in effluent discharges.
5. This Order may be reopened and modified in accordance with the requirements set forth at 40 CFR 122 and 124, to include the appropriate conditions or limits to address demonstrated effluent toxicity based on newly available information, or to implement any EPA-approved new State water quality standards applicable to effluent toxicity.
6. This Order may be reopened to incorporate appropriate biosolids requirements if the State Water Resources Control Board and the Regional Water Quality Control Board are given the authority to implement regulations contained in 40 CFR 503.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on December 19, 2001.

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Gerard J. Thibeault  
Executive Officer

**California Regional Water Quality Control Board  
Santa Ana Region**

**MONITORING AND REPORTING PROGRAM NO. 01-55  
NPDES NO. CA8000383**

**for the**

**City of Corona  
Wastewater Treatment Plant No. 1  
Riverside County**

CITY OF CORONA WASTEWATER TREATMENT PLANT NO. 1  
MONITORING AND REPORTING PROGRAM

TABLE OF CONTENTS	PAGE
A. MONITORING AND REPORTING REQUIREMENTS: .....	1-7
B. INFLUENT MONITORING: .....	7-9
C. EFFLUENT MONITORING: .....	9-14
D. TOXICITY MONITORING REQUIREMENTS: .....	14-17
E. RECEIVING WATER MONITORING: .....	17
F. WATER SUPPLY MONITORING: .....	17
G. WATER RECYCLING MONITORING AND REPORTING: .....	18
H. SALT OFFSET PROGRAM MONITORING AND REPORTING: .....	18
I. PRETREATMENT REPORTING: .....	18-21
J. REPORTING: .....	22-23
ATTACHMENT "A", PRACTICAL QUANTITATION LEVEL	
ATTACHMENT "B", MINIMUM LEVELS	
ATTACHMENT "C", PRIORITY POLLUTANT LIST	

California Regional Water Quality Control Board  
Santa Ana Region

Monitoring and Reporting Program (M&RP) No. 01-55

NPDES No. CA8000383

for the

City of Corona

Wastewater Treatment Plant No. 1

Riverside County

**A. MONITORING AND REPORTING REQUIREMENTS:**

1. All sampling and sample preservation shall be in accordance with the current edition of *"Standard Methods for the Examination of Water and Wastewater"* (American Public Health Association).
2. All laboratory analyses shall be performed in accordance with test procedures under 40 CFR 136 (latest edition) *"Guidelines Establishing Test Procedures for the Analysis of Pollutants,"* promulgated by the United States Environmental Protection Agency (EPA), unless otherwise specified in this monitoring and reporting program (M&RP). In addition, the Regional Board and/or EPA, at their discretion, may specify test methods which are more sensitive than those specified in 40 CFR 136. Laboratory analysis for biosolids shall be in accordance with 40 CFR 503.8.
3. Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services or EPA or at laboratories approved by the Regional Board's Executive Officer.
4. In conformance with federal regulations 40 CFR 122.45(c), analyses to determine compliance with the effluent limitations for metals shall be conducted using the total recoverable method. For Chromium (VI), the dissolved method in conformance with 40 CFR 136 may be used to measure compliance with the Chromium (VI) limitation.
5. For effluent and ambient receiving water monitoring:
  - a. Until June 1, 2002, the discharger shall require its testing laboratory analyzing priority pollutants to quantify each constituent at least down to the Practical Quantitation Levels<sup>1</sup> specified in Attachment "A". Any internal quality control data associated with the sample must be reported when requested by the Executive Officer. The Regional Board will reject the quantified laboratory data if quality control data is unavailable or unacceptable.

<sup>1</sup>

*PQL is the lowest concentration of a substance which can be determined within  $\pm 20$  percent of the true concentration by 75 percent of the analytical laboratories tested in a performance evaluation study. Alternatively, if performance data are not available, the PQL is the method detection limit (MDL)  $\times 5$  for carcinogens and MDL  $\times 10$  for noncarcinogens.*

- b. By June 1, 2002, the discharger shall require its testing laboratory to calibrate the analytical system down to the minimum levels (MLs)<sup>2</sup> specified in Attachment “B” for priority pollutants with effluent limitations in this Order, unless an alternative minimum level is approved by the Regional Board’s Executive Officer. The June 1, 2002, date may be extended by the Executive Officer provided that good cause is demonstrated by the discharger and provided that any such extension is as short as possible. Any internal quality control data associated with the sample must be reported when requested by the Executive Officer. The Regional Board will reject the quantified laboratory data if quality control data is unavailable or unacceptable.
- c. For receiving water monitoring and for those priority pollutants without effluent limitations, the discharger shall require its testing laboratory to quantify constituent concentrations to the lowest achievable MDL as determined by the procedure found in 40 CFR 136 (revised as of May 14, 1999). In situations where the most stringent applicable receiving water objective (freshwater or human health (consumption of organisms only), as specified for that pollutant in 40 CFR 131.38<sup>3</sup>) is below the minimum level value specified in Attachment “B” and the discharger cannot achieve an MDL value for that pollutant below the ML value, the discharger shall submit justification why a lower MDL value cannot be achieved. Justification shall be submitted together with monthly monitoring reports.
- d. The discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:
  - (1) For monitoring data submitted through June 1, 2002:
    - (a) Sample results greater than or equal to the PQL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
    - (b) Sample results less than the PQL, but greater than or equal to the laboratory’s MDL, shall be reported as “Detected, but Not Quantified,” or “DNQ.” The estimated chemical concentration of the sample shall also be reported.
    - (c) Sample results not detected above the laboratory’s MDL shall be reported as “not detected” or “ND.”

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<sup>2</sup> Minimum level is the concentration at which the entire analytical system must give a recognizable signal and acceptable point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

<sup>3</sup> See Federal Register/ Vol. 65, No. 97 / Thursday, May 18, 2000 / Rules and Regulations.

- (2) For monitoring data submitted after June 1, 2002<sup>4</sup>:
    - (a) Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
    - (b) Sample results less than the reported ML, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or "DNQ." The estimated chemical concentration of the sample shall also be reported.
    - (c) Sample results not detected above the laboratory's MDL shall be reported as "not detected" or "ND."
- e. The discharger shall submit to the Regional Board reports necessary to determine compliance with effluent limitations for priority pollutants in this Order and shall follow the chemical nomenclature and sequential order of constituents shown in Attachment "C" – Priority Pollutant Lists. The discharger shall report with each sample result:
  - (1) The PQL or ML achieved by the testing laboratory; and
  - (2) The laboratory's current Method Detection Limit (MDL)<sup>5</sup>, as determined by the procedure found in 40 CFR 136 (revised as of May 14, 1999).
6. For non-priority pollutants monitoring, all analytical data shall be reported with identification of practical quantitation levels and with method detection limits, as determined by the procedure found in 40 CFR 136 (revised as of May 14, 1999).
7. The discharger shall have, and implement an acceptable written quality assurance (QA) plan for laboratory analyses. Duplicate chemical analyses must be conducted on a minimum of ten percent (10%) of the samples, or at least one sample per month, whichever is greater. A similar frequency shall be maintained for analyzing spiked samples. When requested by the Regional Board or EPA, the discharger will participate in the NPDES discharge monitoring report QA performance study.

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<sup>4</sup> If an extension from this date is authorized by the Executive Officer for one or more constituents, then the requirements specified in paragraph A.5.d.1) above, shall apply to that constituent(s) until the extended date specified by the Executive Officer. After that date, the requirements specified in paragraph A.5.d.2) shall apply.

<sup>5</sup> MDL is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in 40 CFR 136, Appendix B, revised as of May 14, 1999.

8. Discharge monitoring data shall be submitted in a format acceptable by the Regional Board and EPA. Specific reporting format may include preprinted forms and/or electronic media. The results of all monitoring required by this Order shall be reported to the Regional Board, and shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this Order. The hard copy of submitted reports shall serve as the official submittal.
9. The discharger shall tabulate the monitoring data to clearly illustrate compliance and/or noncompliance with the requirements of the Order.
10. The discharger shall multiply each measured or estimated congener concentration by its respective toxic equivalency factor (TEF) as shown below and report the sum of these values. The discharger shall use the U.S. EPA approved test method 1613 for dioxins and furans.

Toxic Equivalency Factors for 2,3,7, 8-TCDD Equivalents	
Congener	TEF
2,3,7,8-TetraCDD	1
1,2,3,7,8-PentaCDD	1.0
1,2,3,4,7,8-HexaCDD	0.1
1,2,3,6,7,8-HexaCDD	0.1
1,2,3,7,8,9-HexaCDD	0.1
1,2,3,4,6,7,8-HeptaCDD	0.01
OctaCDD	0.0001
2,3,7,8-TetraCDF	0.1
1,2,3,7,8-PentaCDF	0.05
2,3,4,7,8-PentaCDF	0.5
1,2,3,4,7,8-HexaCDF	0.1
1,2,3,6,7,8-HexaCDF	0.1
1,2,3,7,8,9-HexaCDF	0.1
2,3,4,6,7,8-HexaCDF	0.1
1,2,3,4,6,7,8-HeptaCDF	0.01
1,2,3,4,7,8,9-HeptaCDF	0.01
OctaCDF	0.0001

11. For every item of monitoring data where the requirements are not met, the monitoring report shall include a statement discussing the reasons for noncompliance, and of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and an estimate of the date when the discharger will be in compliance. The discharger shall notify the Regional Board by letter when compliance with the time schedule has been achieved.
12. The monthly reports for June and December shall include a roster of plant personnel, including job titles, duties, and level of State certification for each individual.



13. By April 1 of each year, the discharger shall submit an annual report to the Regional Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the discharger shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the waste discharge requirements. The annual report shall include a summary of the quality assurance (QA) activities for the previous year.
14. The discharger shall assure that records of all monitoring information are maintained and accessible for a period of at least five years from the date of the sample, report, or application. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or by the request of the Regional Board at any time. Records of monitoring information shall include:
  - a. The date, exact place, and time of sampling or measurements;
  - b. The individual(s) who performed the sampling, and/or measurements;
  - c. The date(s) analyses were performed;
  - d. The laboratory which performed the analyses;
  - e. The individual(s) who performed the analyses;
  - f. The analytical techniques or methods used;
  - g. All sampling and analytical results;
  - h. All monitoring equipment calibration and maintenance records;
  - i. All original strip charts from continuous monitoring devices;
  - j. All data used to complete the application for this Order;
  - k. Copies of all reports required by this Order; and
  - l. Electronic data and information generated by the Supervisory Control And Data Acquisition (SCADA) System.
15. The flow measurement system shall be calibrated at least once per year or more frequently, to ensure continued accuracy.
16. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. In the event that continuous monitoring equipment is out of service for greater than a 24 hour period, the discharger shall obtain at least a representative grab sample each day the equipment is out of service. The discharger shall correct the cause(s) of failure of the continuous monitoring equipment as soon as practicable. In its monitoring report, the discharger shall specify the period(s) during which the equipment was out of service and if the problem has not been corrected, shall identify the steps which the discharger is taking or proposes to take to bring the equipment back into service and the schedule for these actions.

17. Monitoring and reporting shall be in accordance with the following:

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- b. The monitoring and reporting of influent, effluent, and sludge shall be done, at a minimum, on an annual basis, and more frequently, depending on the nature and effect of the sewage sludge use or disposal practice, or as specified in this Order.
- c. All monitoring, including that of sludge use or disposal, must be conducted according to test procedures approved under 40 CFR 136 or as specified in this Order.
- d. The results of any analysis of samples taken more frequently than required at the locations specified in this M&RP shall be reported to the Regional Board.
- e. A "grab" sample is defined as any individual sample collected in less than 15 minutes.
- f. A composite sample is defined as a combination of no fewer than eight individual grab samples obtained over the specified sampling period. The volume of each individual grab sample shall be proportional to the discharge flow rate at the time of sampling or, the number of equal volume samples shall be proportional to the flow over the sampling period. The compositing period shall equal the specific sampling period, or 24 hours, if no period is specified.
- g. Daily samples shall be collected on each day of the week.
- h. Monthly samples shall be collected on any representative day of each month.
- i. Quarterly samples shall be collected in January, April, July, and October.
- j. Semi-annual samples shall be collected in January and July.
- k. Annual samples shall be collected in accordance with the following schedule:

Year	Annual samples
2002	July
2003	October
2004	January
2005	April
2006	July

18. All reports shall be signed by either a principal executive officer or ranking elected or appointed official or a duly authorized representative of a principal executive officer or ranking elected or appointed official. A duly authorized representative of a principal executive officer or ranking elected or appointed official may sign the reports only if;
  - a. The authorization is made in writing by a principal executive officer or ranking elected or appointed official,

- b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position), and
- c. The written authorization is submitted to the Regional Board.

Each person signing a report required by this Order or other information requested by the Regional Board shall make the following certification:

*" I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate<sup>6</sup>, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

- 19. The discharger, unless otherwise specified elsewhere in this M&RP, shall deliver a copy of each monitoring report in the appropriate format to:
  - a. California Regional Water Quality Control Board  
Santa Ana Region  
3737 Main Street, Suite 500  
Riverside, CA 92501-3348, and
  - b. NPDES/DMR  
CWA Compliance Office, WTR-7  
Water Division  
75 Hawthorne Street  
San Francisco, CA 94105

**B. INFLUENT MONITORING:**

- 1. Sampling stations shall be established and located upstream of any in-plant return flows and where a representative sample of the influents to the treatment facility can be obtained. The date and time of sampling (as appropriate) shall be reported with the analytical values determined.
- 2. The following shall constitute the influent monitoring program:

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<sup>6</sup> For the purposes of this certification the term "accurate" refers to the veracity of the information submittal and not to the performance characteristics of the measurement system.

Constituent	Units	Type of Sample	Minimum Frequency of Sampling & Analysis
Flow	mgd	Recorder/ Totalizer	Continuous
Specific Conductance	µmhos/cm	Recorder	"
pH	pH units	"	"
TOC	mg/l	Composite	Daily
BOD	"	"	"
Total Suspended Solids	"	"	"
Ammonia-Nitrogen	"	Grab	Monthly
Chloride	"	Composite	"
Sodium	"	"	"
Sulfate	"	"	"
Total Hardness	"	"	"
Total Inorganic Nitrogen	"	"	"
Total Dissolved Solids	"	"	Monthly
Boron	"	"	Quarterly
Barium	"	"	"
Fluoride	mg/l	Composite	
Cyanide (Free)	µg/l	Grab	"
Arsenic	"	Composite	"
Benzene	"	"	"
Bromodichloromethane	"	"	"
Cadmium	"	"	"
Chloroform	"	"	"
Copper	"	"	"
Dibromochloromethane	"	"	"
Hexachlorocyclohexane-gamma	"	"	"
Iron	"	"	"
Lead	"	"	"
Manganese	"	"	"
Mercury	"	"	"
Nickel	"	"	"
Phenol	"	"	"
Selenium	"	"	"
Silver	"	"	"
Total Chromium	"	"	"
Zinc	"	Composite	Quarterly
Volatile organic portion of EPA Priority Pollutants <sup>7</sup> (See Attachment "C")	µg/l	Grab	Annually

<sup>7</sup>

EPA priority pollutants are those remaining volatile organic pollutants listed in Attachment "C" which are not specifically listed in this monitoring program table.

Constituent	Units	Type of Sample	Minimum Frequency of Sampling & Analysis
Remaining EPA Priority Pollutants <sup>8</sup> (See Attachment “C”)	µg/l	Composite	Annually

**c. EFFLUENT MONITORING:**

1. Sampling station(s) shall be established at the point(s) of discharge and shall be located where representative samples of the effluent can be obtained. If chlorine is ever used for effluent treatment, then residual chlorine shall be monitored at the sampling station.
2. The following shall constitute the effluent monitoring program for the discharge of tertiary treated wastewater into Temescal Creek (Discharge Serial 001) and for recycled water use:

Constituent	Units	Type of Sample	Minimum Frequency of Sampling & Analysis
Flow	MGD <sup>9</sup>	Recorder/Totalizer	Continuous
Specific Conductance	µmhos/cm	Recorder	"
pH	pH units	"	"
Turbidity Four-hour Results Daily Average Daily 95th Percentile	NTU <sup>10</sup>	Recorder	See note (3), below
Coliform Organisms	MPN/100mL <sub>11</sub>	Grab	Daily (see note (2), below)
TOC	mg/l	Composite	Daily
BOD	mg/l	Composite	Weekly
Total Suspended Solids	"	Composite	Weekly
Ammonia-Nitrogen	"	Grab	Weekly
Temperature	°C	Grab	Weekly
Toxicity Monitoring for discharges to Temescal Creek only	----	(See Section D., Below)	(See Section D., Below)
Bicarbonate	mg/l	Composite	Monthly
Boron	mg/l	Composite	Monthly

<sup>8</sup> Remaining EPA priority pollutants are those pollutants listed in Attachment “C” which are not volatile organics and pollutants not specifically listed in this monitoring program table.

<sup>9</sup> MGD = Million gallons per day

<sup>10</sup> NTU = Nephelometric Turbidity Units

<sup>11</sup> MPN/100mL = Most Probable Number per 100 milliliters

Constituent	Units	Type of Sample	Minimum Frequency of Sampling & Analysis
Calcium	"	"	"
Carbonate	"	"	"
Chloride	"	"	"
Fluoride	"	"	"
Magnesium	"	"	"
Nitrate	"	"	"
Sodium	"	"	"
Sulfate	"	"	"
Total Dissolved Solids	"	"	"
Total Hardness	"	"	"
Total Inorganic Nitrogen	"	"	"
Iron	"	"	"
Manganese	"	"	"
Cadmium	"	"	"
Chromium (VI) or Total Chromium	"	"	"
Copper	"	"	"
Lead	"	"	"
Mercury	"	"	"
Nickel	"	"	"
Selenium	"	"	"
Silver	"	"	"
Zinc	"	Composite	Monthly
Hexachlorocyclohexane -gamma	"	Grab	Monthly (see C.5., below)
Bis (2-ethylhexyl) phthalate	"	"	"
Endosulfan I	"	"	"
4,4'-DDT	"	"	"
Tetrachloroethylene (PCE)	"	"	"
Cyanide (Free)	"	Grab	Quarterly (see C.3., below)
Total Trihalomethanes <sup>12</sup>	µg/l	Composite	"
Arsenic	"	"	"
Barium	"	"	"
Cobalt	"	"	"
Acrylonitrile	"	"	"
Benzene	"	"	"
Carbon Tetrachloride	µg/l	Composite	Quarterly (see C.3., below)

<sup>12</sup> Total Trihalomethanes shall mean the sum of Bromoform, Chloroform, Dibromochloromethane, and Bromodichloromethane.

Constituent	Units	Type of Sample	Minimum Frequency of Sampling & Analysis
1,1-Dichloroethylene	"	"	"
Pentachlorophenol	"	"	"
Phenol	"	"	"
2,4,6-Trichlorophenol	"	"	"
Benzidine	"	"	"
Benzo (a) anthracene	"	"	"
Benzo (a) pyrene	"	"	"
Benzo (b) fluoranthene	"	"	"
Benzo (k) fluorantene	"	"	"
Bis (2-Chloroethyl) ether	"	"	"
Chrysene	"	"	"
Dibenzo (a,h) anthracene	"	"	"
3,3-Dichlorobenzidine	"	"	"
2,4-Dinitrotoluene	"	"	"
1,2-Diphenylhydrazine	"	"	"
Hexachlorobenzene	"	"	"
Hexachloroethane	"	"	"
Indeno (1,2,3-cd) pyrene	"	"	"
N-Nitrosodimethylamine	"	"	"
N-Nitrosodi-N-propylamine	"	"	"
Aldrin	"	"	"
Alpha BHC	"	"	"
Beta BHC	"	"	"
Chlordane	"	"	"
4,4'-DDE	"	"	"
4,4'-DDD	"	"	"
Dieldrin	"	"	"
Endrin	"	"	"
Heptachlor	"	"	"
Heptachlor Epoxide	"	"	"
PCB 1016	"	"	"
PCB 1221	"	"	"
PCB 1232	"	"	"
PCB 1242	"	"	"
PCB 1248	"	"	"
PCB 1254	"	"	"
PCB 1260	"	"	"
Toxaphene	µg/l	Composite	Quarterly (see C.3., below)
2,3,7,8-TetraCDD	pg/l (parts-per-quadrillion)	Composite	Semi-annual (see A.10 & A.17.j.)

Constituent	Units	Type of Sample	Minimum Frequency of Sampling & Analysis
1,2,3,7,8-PentaCDD	"	"	"
1,2,3,4,7,8-HexaCDD	"	"	"
1,2,3,6,7,8-HexaCDD	"	"	"
1,2,3,7,8,9-HexaCDD	"	"	"
1,2,3,4,6,7,8-HeptaCDD	"	"	"
OctaCDD	"	"	"
2,3,7,8-TetraCDF	"	"	"
1,2,3,7,8-PentaCDF	"	"	"
2,3,4,7,8-PentaCDF	"	"	"
1,2,3,4,7,8-HexaCDF	"	"	"
1,2,3,6,7,8-HexaCDF	"	"	"
1,2,3,7,8,9-HexaCDF	"	"	"
2,3,4,6,7,8-HexaCDF	"	"	"
1,2,3,4,6,7,8-HeptaCDF	"	"	"
1,2,3,4,7,8,9-HeptaCDF	"	"	"
OctaCDF	µg/l (parts-per-quadrillion)	Composite	Semi-annual (see A.10 & A.17.j.)
Volatile organic portion of EPA Priority Pollutants <sup>13</sup> (See Attachment "C")	µg/l	Grab	Annually (see C.4., below)
Remaining EPA Priority Pollutants <sup>14</sup> (See Attachment "C")	µg/l	Composite	Annually (see C.4., below)

Notes:

- (1) Samples for total coliform bacteria shall be collected at least daily. Samples shall be taken from the disinfected effluent.
  - (2) Turbidity analysis shall be continuous, performed by a continuous recording turbidimeter. Compliance with the daily average operating filter effluent turbidity shall be determined by averaging the levels of recorded turbidity taken at a minimum of four-hour intervals over a 24-hour period. The results of the daily average turbidity determinations shall be reported monthly.
3. The monitoring frequency for those priority pollutants that are detected during the required quarterly monitoring at a concentration greater than eighty percent of the most stringent applicable receiving water objective (freshwater or human health (consumption

<sup>13</sup> EPA priority pollutants are those remaining volatile organic pollutants listed in Attachment "C" which are not specifically listed in this monitoring program table.

<sup>14</sup> Remaining EPA priority pollutants are those pollutants listed in Attachment "C" which are not volatile organics and pollutants not specifically listed in this monitoring program table.



- of organisms only) specified for that pollutant<sup>15</sup> in 40 CFR 131.38<sup>16</sup>) shall be accelerated to monthly. To return to the monitoring frequency specified, the discharger shall request and receive approval from the Regional Board's Executive Officer or designee.
4. The monitoring frequency for those priority pollutants that are detected during the required annual monitoring at a concentration greater than eighty percent of the most stringent applicable receiving water objective (freshwater or human health (consumption of organisms only) as specified for that pollutant<sup>15</sup> in 40 CFR 131.38<sup>16</sup>) shall be accelerated to quarterly for one year following detection. To return to the monitoring frequency specified, the discharger shall request and receive approval from the Regional Board's Executive Officer or designee.
  5. The monitoring frequency for this priority pollutant shall be reduced to quarterly if after one year of monitoring there are no detected values at a concentration greater than eighty percent of the most stringent applicable receiving water objective (freshwater or human health (consumption of organisms only) as specified for that pollutant<sup>15</sup> in 40 CFR 131.38<sup>16</sup>). To reduce the monitoring frequency to quarterly, the discharger shall request and receive approval from the Regional Board's Executive Officer or designee.
  6. The following shall constitute the effluent monitoring program for discharges to percolation ponds (Discharge Serial 002):

Constituent	Units	Type of Sample	Minimum Frequency of Sampling and Testing
Flow	MGD	Flow meter	Continuous
Specific Conductance	µmhos/cm	Recorder	Continuous
pH	pH units	"	"
BOD	mg/l	Composite	Daily
Suspended Solids	"	"	Daily
Total Dissolved Solids	"	"	Monthly
Total Hardness	"	"	"
Total Inorganic Nitrogen	"	"	"
N-Nitrosodimethylamine	µg/l	"	"
Boron	µg/l	Composite	Quarterly
Chloride	"	"	"

<sup>15</sup> For those priority pollutants without specified criteria values, accelerated monitoring is not required.

<sup>16</sup> See Federal Register/ Vol. 65, No. 97 / Thursday, May 18, 2000 / Rules and Regulations.

Constituent	Units	Type of Sample	Minimum Frequency of Sampling and Testing
Sodium	"	"	"
Sulfate	"	"	"
Total Hardness	mg/l	Composite	Quarterly
Arsenic	µg/l	Composite	Quarterly for the first year and semi-annually thereafter
Barium	"	"	"
Cadmium	"	"	"
Chromium, Total	"	"	"
Cobalt	"	"	"
Copper	"	"	"
Cyanide	"	"	"
Iron	"	"	"
Lead	"	"	"
Manganese	"	"	"
Mercury	"	"	"
Selenium	"	"	"
Silver	"	"	"
Phenolic Compounds	"	"	"

**D. TOXICITY MONITORING REQUIREMENTS:**

1. The discharger shall conduct critical life stage chronic toxicity testing in accordance with Method 1002.0 - Survival and Reproduction test for water flea, *Ceriodaphnia dubia* as specified in "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms", third edition, Environmental Monitoring Systems Laboratory, U.S. Environmental Protection Agency 1994, Cincinnati, Ohio (July 1994, EPA/600/4-91/002).
2. The discharger shall establish procedures to ensure that the toxicity testing laboratory notifies the discharger of the results of toxicity testing by the end of the next business day following the completion of such tests.
3. A minimum of one monthly chronic toxicity test shall be conducted on representative grab samples.

4. The discharger shall increase the frequency of chronic toxicity testing to, at a minimum of every two weeks whenever any test result exceeds 1.0 TUc. The first test under the accelerated schedule shall be conducted within two weeks of receiving notice of the test which exceeds 1.0 TUc, and every two weeks thereafter. The discharger may resume the regular test schedule when two consecutive chronic toxicity tests result in 1.0 TUc, or when the results of the Initial Investigation Reduction Evaluation conducted by the discharger have adequately addressed the identified toxicity problem .
5. The presence of chronic toxicity shall be estimated as specified in Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. Third Edition. EPA/600/4-91/002.
6. Results for both survival and reproduction endpoints shall be reported in TUc, where  $TUc = 100/NOEC$  or  $100/ICp$  or  $ECp$  (p is the percent effluent). The no observed effect concentration (NOEC) is the highest concentration of toxicant to which organisms are exposed in a chronic test, that causes no observable adverse effect on the tests organisms (e.g., the highest concentration of toxicant to which the values for the observed responses are not statistically significant different from the controls). The inhibition concentration (IC) is a point estimate of the toxicant concentration that causes a given percent reduction in a non-quantal biological measurement (e.g., reproduction or growth) calculated from a continuous model (the EPA Interpolation Method). The effective concentration (EC) is a point estimate of the toxicant concentration that would cause a given percent reduction in quantal biological measurement (e.g., larval development, survival) calculated from a continuous model (e.g., probit).
7. Additional Testing Requirements.
  - a. A series of at least five dilutions and a control will be tested. Five dilutions of the series shall be within 60% to 100% effluent concentration.
  - b. If organisms are not cultured in-house, concurrent testing with reference toxicants shall be conducted. Where organisms are cultured in-house, monthly reference toxicant testing is sufficient. Reference toxicants shall also be conducted using the same test conditions as the effluent toxicity test (e.g., same test duration, etc).
  - c. If either of the reference toxicant test or the effluent tests do not meet all test acceptability criteria as specified in the manual<sup>17</sup>, then the discharger must re-sample and re-test within 14 days or as soon as the discharger receives notification of failed tests.
  - d. Control and dilution water should be receiving water or lab water. If the dilution water used is different from the culture water, a second control, using culture water shall also be used.

<sup>17</sup>

Refers to USEPA Manual "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. Third Edition. EPA/600/4-91/002."

8. Quality Assurance/Control:

- a. A quality assurance/quality control (QA/QC) program shall be instituted to verify the results of the effluent toxicity monitoring program. The QA/QC program shall include but shall not be limited to the following: (1) Selection of an independent testing laboratory; (2) Approval by the Regional Board's Executive Officer or Executive Officer's designee of the independent testing laboratory; (3) Once during the year, the discharger shall split samples with the independent laboratory for conducting chronic toxicity testing; (4) Results from the independent laboratory shall be submitted to the Regional Board and the discharger for evaluation; (5) The discharger shall review the test acceptability criteria in accordance with the EPA test protocols, EPA/600/4-91/002.
  - b. Results from the independent laboratory of the annual QA/QC split samples are to be used for Quality Assurance/Quality Control (QA/QC) purposes only and not for purposes of determining compliance with other requirements of this Order.
9. The use of alternative methods for measuring chronic toxicity may be considered by the Executive Officer on a case-by-case basis. The use of a different test species, in lieu of conducting the required test species may be considered/approved by the Executive Officer on a case-by case basis upon submittal of the documentation supporting discharger's determination that a different species is more sensitive and appropriate.
10. Reporting: Results of all toxicity testing conducted within the month following the reporting period shall be submitted monthly in accordance with "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms", third edition, Environmental Monitoring Systems Laboratory, U.S. Environmental Protection Agency 1994, Cincinnati, Ohio (July 1994, EPA/600/4-91/002). The report shall include a determination of the median value of all chronic toxicity testing results conducted during the two previous months.
11. Whenever an Initial Investigation Reduction Evaluation is conducted, the results of the evaluation shall be submitted upon completion. In addition, monthly status reports shall be submitted as part of the discharger's monitoring report.

12. In addition to the above Method 1002.0 chronic toxicity testing for water flea (*Ceriodaphnia dubia*), at least once monthly the discharger shall conduct 96-hour, static renewal acute toxicity test using fathead minnow (*Pimephales promelas*) as specified in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms", fourth edition, U.S. Environmental Protection Agency (EPA/600/4-90/027F, August 1993). The discharger shall increase the frequency of acute toxicity testing to at least once per week whenever two consecutive tests result in less than 90% survival of the test organisms or the survival rate of the test organisms is less than 70 percent in any single test. The discharger shall resume the regular test schedule when two consecutive tests show 90% or greater survival of tests organisms. The Executive Officer may terminate this fathead minnow testing requirement at any time upon determination that the test is no longer necessary. The discharger shall submit documentation that the survival rate of the fathead minnow test organisms is consistently above 90% survival.

**E. RECEIVING WATER MONITORING:**

1. The following receiving water stations shall be monitored for the indicated constituents:

Station A: Temescal Creek at Rincon Bridge or adjacent location with safe access.
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2. At station A, all the priority pollutants listed in Attachment "C" shall be monitored quarterly and reported by the last day of the month following the monitoring period.
3. Unless otherwise directed by the Regional Board Executive Officer, the discharger shall implement the approved plan for the annual sampling and testing of mercury levels in fish flesh samples collected from the Santa Ana River (see Section G.2 of the Order). The frequency of monitoring and submission of reports shall be as stipulated in the approved plan.

**F. WATER SUPPLY MONITORING:**

1. In June of each year, a sample of each source of the water supplied to the sewered area shall be obtained and analyzed for the following constituents:

Chloride	Sulfate
Sodium	Total Dissolved Solids
Specific Conductance	Total Hardness

2. All of the above constituents shall be expressed in "mg/l" except specific conductance and pH, which shall be expressed in "micromhos/cm" and "pH units," respectively.
3. Monthly reports shall be submitted stating the quality of water supplied to the sewered area for constituents specified in Section F.1., above.

**G. WATER RECYCLING MONITORING AND REPORTING:**

1. Whenever recycled water is supplied to a user, the volume of recycled water, the user of recycled water, the locations of those sites including the names of the groundwater subbasins underlying the recycled water use sites, type of use (e.g. irrigation, industrial, etc) and the dates at which water is supplied shall be recorded. A summary report of water use by groundwater subbasins shall be submitted annually. In addition, the discharger shall submit an annual report certifying that the users have implemented the Rules and Regulations established by the discharger. This report shall be included in the annual report required in Section A.13. above.

**H. ~~TDS~~ SALT OFFSET PROGRAM MONITORING AND REPORTING:**

1. ~~Where TDS exceedances above the effluent limitations is being offset by extraction of an equivalent amount of TDS from the Temescal Groundwater Basin for treatment at the Temescal Desalter facility, the discharger shall submit calculations proving that an offset has been complied. If extraction of an equivalent amount of TDS from the Temescal Groundwater Basin for treatment at the Temescal Desalter facility is also claimed for offsetting TDS exceedances by other treatment plants operated by the discharger, the calculations shall show the offset allocation for each plant. This calculation shall be submitted monthly together with the required monthly report. If there is no offset during the monitoring period, a report stating that there has been no offset shall be submitted in lieu of the calculation.~~ The discharger shall submit annual salt removal sums demonstrating that the offset is occurring and is being complied with.

**I. PRETREATMENT MONITORING AND REPORTING:**

1. The discharger shall submit to the Regional Board, the State Water Resources Control Board and the EPA Region 9, a quarterly compliance status report. The quarterly compliance status reports shall cover the periods January 1 - March 31, April 1 - June 30, July 1 - September 30, and October 1 -December 31. Each report shall be submitted by the end of the month following the quarter, except that the report for October 1 - December 31 may be included in the annual report. This quarterly reporting requirement shall commence for the first full quarter following issuance of this Order. The reports shall identify:
  - a. All significant industrial users (SIUs) which violated any standards or reporting requirements during that quarter;
  - b. The violations committed (distinguish between categorical and local limits);
  - c. The enforcement actions undertaken; and
  - d. The status of active enforcement actions from previous periods, including closeouts (facilities under previous enforcement actions which attained compliance during the quarter).
2. Annually, the discharger shall submit a report to the Regional Board, the State Water Resources Control Board and the EPA Region 9 describing the pretreatment activities

within the service area during the previous year. In the event that any control authority within the service area is not in compliance with any conditions or requirements of this Order or their approved pretreatment program (such as due to industrial user discharges, inter-jurisdictional agency agreement implementation issues, or other causes) then the discharger shall also include the reasons for non-compliance and state how and when the discharger and the control authority shall comply with such conditions and requirements. This annual report shall cover operations from January 1 through December 31 and is due on September 30 of each year. The report shall contain, but not be limited to, the following information:

- a. A summary of analytical results from representative, flow-proportioned, 24-hour composite sampling of the POTW's influent and effluent wastewaters for those pollutants which are known or suspected to be discharged by industrial users (IUs) as identified by EPA under Section 307(a) of the CWA. The summary will include the result of annual full priority pollutant scan, with quarterly samples analyzed only for those pollutants<sup>18</sup> detected in the full scan. The discharger shall also provide any influent or effluent monitoring data for non-priority pollutants which the discharger believes may be causing or contributing to Interference, Pass Through or adversely impacting sludge quality. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR 136 and amendments thereto.
- b. A discussion of any upset, interference, or pass-through incidents at the treatment plant (if any), which the discharger knows or suspects were caused by IUs of the POTW system. The discussion shall include the following:
  - (1) The reasons why the incidents occurred, the corrective actions taken, and, if known, the name and address of the IU(s) responsible.
  - (2) A review of the applicable pollutant limitations to determine whether any additional limitations, or changes to existing requirements, may be necessary to prevent pass through, interference or noncompliance with sludge disposal requirements.
- c. A complete and updated list of the discharger's significant industrial users (SIUs), including names, Standard Industrial Classification (SIC) code(s) and addresses, and a list of any SIU deletions and/or additions. The discharger shall provide a brief explanation for each deletion. The SIU list shall identify the SIUs subject to Federal Categorical Standards by specifying which set(s) of standards are applicable to each SIU. The list shall also indicate which SIUs are subject to local limitations more stringent than Federal Categorical Standards and those which are not subject to local limits.
- d. A list or table characterizing the industrial compliance status of each SIU,

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<sup>18</sup>

*The discharger is not required to analyze for asbestos.*

including:

- (1) SIU name;
- (2) Industrial category;
- (3) The type (processes) of wastewater treatment in place;
- (4) Number of samples taken by the POTW during the year;
- (5) Number of samples taken by the SIU during the year;
- (6) Whether all needed certifications (if allowed) were provided by SIUs which have limits for total toxic organics;
- (7) Federal and Regional Standards violated during the year, reported separately;
- (8) Whether the SIU at any time in the year was in Significant Noncompliance (SNC)<sup>19</sup>, as defined by 40 CFR 403.12 (f)(2)(vii); and
- (9) A summary of enforcement actions against the SIU taken during the year, including the type of action, final compliance date, and amount of fines assessed/collected (if any). Proposed actions, if known, should be included.
- (10) Number of inspections conducted at each SIU during the year.

e. A compliance summary table which includes:

- (1) SIU's which were in SNC at any time during the year;
- (2) The total number of SIUs which are in SNC with pretreatment compliance schedules during the year;
- (3) The total number of notices of violation and administrative orders issued against SIUs during the year;
- (4) The total number of civil and criminal judicial actions filed against SIUs during the year;
- (5) The number of SIUs which were published as being in SNC during the year; and
- (6) The number of IUs from which penalties were collected during the year.

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<sup>19</sup> SNC is determined at the beginning of each quarter based on data of the previous six months.



- f. A short description of any significant changes in operating the pretreatment program which differ from the previous year including, but not limited to changes concerning:
    - (1) the program's administrative structure;
    - (2) local industrial discharge limitations;
    - (3) monitoring program or monitoring frequencies;
    - (4) legal authority or enforcement policy;
    - (5) funding mechanisms; and
    - (6) resource requirements and/or staffing levels.
  - g. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases.
  - h. A summary of public participation activities to involve and inform the public.
  - i. A description of any changes in sludge disposal methods and a discussion of any concerns not described elsewhere in the report.
  - j. The number of industrial users that the discharger has notified regarding Baseline Monitoring Reports and the number of industrial user responses.
  - k. A summary of activities conducted implementing and enforcing inter-jurisdictional agreements between the contracting agencies.
3. The discharger shall submit the quarterly compliance status reports and the annual pretreatment report to EPA Region 9, the State Board and the Regional Board at the following addresses:
- a. Regional Administrator  
U.S. Environmental Protection Agency  
Region 9 - Attention WTR-7  
75 Hawthorne Street  
San Francisco, CA 94105
  - b. State Water Resources Control Board  
Division of Water Quality, Pretreatment Unit  
P.O. Box 944213  
Sacramento, CA 94244-2130
  - c. Gerard J. Thibeault, Executive Officer  
California Regional Water Quality Control Board  
Santa Ana Region  
3737 Main Street, Suite 500  
Riverside, CA 92501-3348

**J. REPORTING:**

1. Monitoring reports shall be submitted by the dates in the following schedule:

Report	Reporting	Report Due Date
Influent and effluent constituents	Monthly	By the 30th day of the month following the monitoring period
Receiving Water Monitoring	"	"
Water Supply Quality	"	"
TDS Offset Reporting	Monthly	"
Water Recycling Reporting	"	"
Toxicity Testing for discharges to Temescal Creek only	See Section D.10., above	"
Quarterly Pretreatment Compliance Status Reports (see Section I.1. , above)	Quarterly	"
Annual Priority Pollutants Analysis	Annually	"
Fish flesh testing		March 31, each year
Annual Water Supply Parameters from each source	"	Fourth Monday of October
Annual Pretreatment Reporting (see Section I.2., above)	"	January 31, each year
Annual Monitoring Report (see Section A.13., above)	Annually	March 31, each year

2. The following reports shall also be submitted by the dates indicated:

REQUIRED REPORTS OF ORDER NO. 01-55	
Report	Report Due Date
Report per Section G.2.	March 1, 2002
Report per Section G.3.	March 1, 2002
Report per Section G.4.	March 1, 2002
Report per Section G.5.	March 1, 2002
Report per Section G.6.	March 1, 2002
Report per Section G.7.	March 1, 2002
Report per Section G.8.	See Section G.8. of the Order
Report per Section G.9.	See Section G.9. of the Order
Report per Section G.10.	See Section G.10. of the Order

REQUIRED REPORTS OF ORDER NO. 01-55	
Report	Report Due Date
Report per Section G.11.	See Section G.11. of the Order
Report per Section G.12.	90 days after effective date of the Order (see Section G.12. of the Order)
Report of Waste Discharge per Section G.13.	180 days before any plant changes (see Section G.13 of the Order)
Non-compliance Reporting per Section G.14.	Within 24-hours followed by a written report within 5-days (see Section G.14. of the Order)
This table attempts to summarize all of the special reports that are required to be submitted in accordance with Order No. 01-55; however, the omission of a report from this table does not absolve the discharger from the requirement to submit that report.	

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Gerard J. Thibeault  
Executive Officer

December 19, 2001

PRACTICAL QUANTITATION LEVELS FOR COMPLIANCE DETERMINATION		
Constituent	PQL µg/l	Analysis Method
1 Arsenic	7.5	ICP
2 Barium	5	ICP
3 Cadmium	1	ICP
4 Chromium (VI)	5	ICP
5 Cobalt	5	ICP
6 Copper	5	ICP
7 Cyanide	20	335.2
8 Iron	10	ICP
9 Lead	5	ICP
10 Manganese	5	ICP
11 Mercury	0.5	CV
12 Nickel	5	ICP
13 Selenium	10	ICP
14 Silver	5	ICP
15 Zinc	10	ICP
16 1,2 - Dichlorobenzene	2	624
17 1,3 - Dichlorobenzene	2	624
18 1,4 - Dichlorobenzene	2	624
18 2,4 - Dichlorophenol	10	625
20 4 - Chloro -3- methylphenol	10	625
21 Aldrin	0.04	608
22 Benzene	1	624
23 Chlordane	0.12	608
24 Chloroform	2	624
25 DDT	0.1	608
26 Dichloromethane	5	624
27 Dieldrin	0.1	608
28 Fluorantene	10	625
29 Endosulfan	0.50	608
30 Endrin	0.10	608
31 Halomethanes	2	624
32 Heptachlor	0.03	608
33 Heptachlor Epoxide	0.05	608
34 Hexachlorobenzene	10	625
35 Hexachlorocyclohexane		
Alpha	0.03	608
Beta	0.03	608
Gamma	0.03	608
36 PAH's	10	625
37 PCB	0.12	608
38 Pentachlorophenol	10	604/625
39 Phenol	10	625
40 TCDD Equivalent	0.05	8280
41 Toluene	1	624
42 Toxaphene	0.18	608
43 Tributyltin	0.02	GC
44 2,4,6-Trichlorophenol	10	625
45 Chlorpyrifus	.05	Discharger's testing protocol
46 Diazinon	.03	Discharger's testing protocol

### MINIMUM LEVELS IN PPB (µg/l)

Table 2a - VOLATILE SUBSTANCES <sup>1</sup>	GC	GCMS
Acrolein	2.0	5
Acrylonitrile	2.0	2
Benzene	0.5	2
Bromoform	0.5	2
Carbon Tetrachloride	0.5	2
Chlorobenzene	0.5	2
Chlorodibromomethane	0.5	2
Chloroethane	0.5	2
Chloroform	0.5	2
Dichlorobromomethane	0.5	2
1,1 Dichloroethane	0.5	1
1,2 Dichloroethane	0.5	2
1,1 Dichloroethylene	0.5	2
1,2 Dichloropropane	0.5	1
1,3 Dichloropropylene (volatile)	0.5	2
Ethylbenzene	0.5	2
Methyl Bromide ( <i>Bromomethane</i> )	1.0	2
Methyl Chloride ( <i>Chloromethane</i> )	0.5	2
Methylene Chloride ( <i>Dichloromethane</i> )	0.5	2
1,1,2,2 Tetrachloroethane	0.5	1
Tetrachloroethylene	0.5	2
Toluene	0.5	2
trans-1,2 Dichloroethylene	0.5	1
1,1,1 Trichloroethane	0.5	2
1,1,2 Trichloroethane	0.5	2
Trichloroethylene	0.5	2
Vinyl Chloride	0.5	2
1,2 Dichlorobenzene (volatile)	0.5	2
1,3 Dichlorobenzene (volatile)	0.5	2
1,4 Dichlorobenzene (volatile)	0.5	2

#### Selection and Use of Appropriate ML Value:

ML Selection: When there is more than one ML value for a given substance, the discharger may select any one of those ML values, and their associated analytical methods, listed in Attachment "A" that are below the calculated effluent limitation for compliance determination. If no ML value is below the effluent limitation, then the discharger shall select the lowest ML value, and its associated analytical method, listed in this Attachment "A".

ML Usage: The ML value in Attachment "A" represents the lowest quantifiable concentration in a sample based on the proper application of all method-based analytical procedures and the absence of any matrix interferences. Assuming that all method-specific analytical steps are followed, the ML value will also represent, after the appropriate application of method-specific factors, the lowest standard in the calibration curve for that specific analytical technique. Common analytical practices sometimes require different treatment of the sample relative to calibration standards.

Note: chemical names in parenthesis and italicized is another name for the constituent.

<sup>1</sup> The normal method-specific factor for these substances is 1, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.

**MINIMUM LEVELS IN PPB (µg/l)**

Table 2b – Semi-Volatile Substances <sup>2</sup>	GC	GCMS	LC
2-Chloroethyl vinyl ether	1	1	
2 Chlorophenol	2	5	
2,4 Dichlorophenol	1	5	
2,4 Dimethylphenol	1	2	
4,6 Dinitro-2-methylphenol	10	5	
2,4 Dinitrophenol	5	5	
2- Nitrophenol		10	
4- Nitrophenol	5	10	
4 Chloro-3-methylphenol	5	1	
2,4,6 Trichlorophenol	10	10	
Acenaphthene	1	1	0.5
Acenaphthylene		10	0.2
Anthracene		10	2
Benzidine		5	
Benzo (a) Anthracene (1,2 Benzanthracene)	10	5	
Benzo(a) pyrene (3,4 Benzopyrene)		10	2
Benzo (b) Fluoranthene (3,4 Benzofluoranthene)		10	10
Benzo(g,h,i)perylene		5	0.1
Benzo(k)fluoranthene		10	2
bis 2-(1-Chloroethoxyl) methane		5	
bis(2-chloroethyl) ether	10	1	
bis(2-Chloroisopropyl) ether	10	2	
bis(2-Ethylhexyl) phthalate	10	5	
4-Bromophenyl phenyl ether	10	5	
Butyl benzyl phthalate	10	10	
2-Chloronaphthalene		10	
4-Chlorophenyl phenyl ether		5	
Chrysene		10	5
Dibenzo(a,h)-anthracene		10	0.1
1,2 Dichlorobenzene (semivolatile)	2	2	
1,3 Dichlorobenzene (semivolatile)	2	1	
1,4 Dichlorobenzene (semivolatile)	2	1	
3,3' Dichlorobenzidine		5	
Diethyl phthalate	10	2	
Dimethyl phthalate	10	2	
di-n-Butyl phthalate		10	
2,4 Dinitrotoluene	10	5	
2,6 Dinitrotoluene		5	
di-n-Octyl phthalate		10	
1,2 Diphenylhydrazine		1	
Fluoranthene	10	1	0.05
Fluorene		10	0.1
Hexachloro-cyclopentadiene	5	5	
1,2,4 Trichlorobenzene	1	5	

### MINIMUM LEVELS IN PPB (µg/l)

Table 2b - SEMI-VOLATILE SUBSTANCES <sup>2</sup>	GC	GCMS	LC	COLOR
Pentachlorophenol	1	5		
Phenol <sup>3</sup>	1	1		50
Hexachlorobenzene	5	1		
Hexachlorobutadiene	5	1		
Hexachloroethane	5	1		
Indeno(1,2,3,cd)-pyrene		10	0.05	
Isophorone	10	1		
Naphthalene	10	1	0.2	
Nitrobenzene	10	1		
N-Nitroso-dimethyl amine	10	5		
N-Nitroso -di n-propyl amine	10	5		
N-Nitroso diphenyl amine	10	1		
Phenanthrene		5	0.05	
Pyrene		10	0.05	

Table 2c – INORGANICS <sup>4</sup>	FAA	GFAA	ICP	ICPMS	SPGF AA	HYDRIDE	CVAA	COLOR	DCP
Antimony	10	5	50	0.5	5	0.5			1000
Arsenic		2	10	2	2	1		20	1000
Beryllium	20	0.5	2	0.5	1				1000
Cadmium	10	0.5	10	0.25	0.5				1000
Chromium (total)	50	2	10	0.5	1				1000
Chromium VI	5							10	
Copper	25	5	10	0.5	2				1000
Lead	20	5	5	0.5	2				10000
Mercury				0.5			0.2		
Nickel	50	5	20	1	5				1000
Selenium		5	10	2	5	1			1000
Silver	10	1	10	0.25	2				1000
Thallium	10	2	10	1	5				1000
Zinc	20		20	1	10				1000
Cyanide								5	

<sup>2</sup> With the exception of phenol by colorimetric technique, the normal method-specific factor for these substances is 1000, therefore, the lowest standards concentration in the calibration curve is equal to the above ML value for each substance multiplied by 1000.

<sup>3</sup> Phenol by colorimetric technique has a factor of 1

<sup>4</sup> The normal method-specific factor for these substances is 1, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.

### MINIMUM LEVELS IN PPB (µg/l)

Table 2d - PESTICIDES – PCBs <sup>5</sup>	GC
Aldrin	0.005
alpha-BHC ( <i>a</i> -Hexachloro-cyclohexane)	0.01
beta-BHC ( <i>b</i> -Hexachloro-cyclohexane)	0.005
Gamma-BHC ( <i>Lindane</i> ; <i>g</i> -Hexachloro-cyclohexane)	0.02
Delta-BHC ( <i>d</i> -Hexachloro-cyclohexane)	0.005
Chlordane	0.1
4,4'-DDT	0.01
4,4'-DDE	0.05
4,4'-DDD	0.05
Dieldrin	0.01
Alpha-Endosulfan	0.02
Beta-Endosulfan	0.01
Endosulfan Sulfate	0.05
Endrin	0.01
Endrin Aldehyde	0.01
Heptachlor	0.01
Heptachlor Epoxide	0.01
PCB 1016	0.5
PCB 1221	0.5
PCB 1232	0.5
PCB 1242	0.5
PCB 1248	0.5
PCB 1254	0.5
PCB 1260	0.5
Toxaphene	0.5

#### Techniques:

GC - Gas Chromatography

GCMS - Gas Chromatography/Mass Spectrometry

HRGCMS - High Resolution Gas Chromatography/Mass Spectrometry (i.e., EPA 1613, 1624, or 1625)

LC - High Pressure Liquid Chromatography

FAA - Flame Atomic Absorption

GFAA - Graphite Furnace Atomic Absorption

HYDRIDE - Gaseous Hydride Atomic Absorption

CVAA - Cold Vapor Atomic Absorption

ICP - Inductively Coupled Plasma

ICPMS - Inductively Coupled Plasma/Mass Spectrometry

SPGFAA - Stabilized Platform Graphite Furnace Atomic Absorption (i.e., EPA 200.9)

DCP - Direct Current Plasma

COLOR - Colorimetric

<sup>5</sup> The normal method-specific factor for these substances is 100, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 100.



EPA PRIORITY POLLUTANT LIST		
Metals	Acid Extractibles	Base/Neutral Extractibles (continuation)
1. Antimony	45. 2-Chlorophenol	91. Hexachloroethane
2. Arsenic	46. 2,4-Dichlorophenol	92. Indeno (1,2,3-cd) Pyrene
3. Beryllium	47. 2,4-Dimethylphenol	93. Isophorone
4. Cadmium	48. 2-Methyl-4,6-Dinitrophenol	94. Naphthalene
5a. Chromium (III)	49. 2,4-Dinitrophenol	95. Nitrobenzene
5b. Chromium (VI)	50. 2-Nitrophenol	96. N-Nitrosodimethylamine
6. Copper	51. 4-Nitrophenol	97. N-Nitrosodi-N-Propylamine
7. Lead	52. 3-Methyl-4-Chlorophenol	98. N-Nitrosodiphenylamine
8. Mercury	53. Pentachlorophenol	99. Phenanthrene
9. Nickel	54. Phenol	100. Pyrene
10. Selenium	55. 2, 4, 6 – Trichlorophenol	101. 1,2,4-Trichlorobenzene
11. Silver	Base/Neutral Extractibles	Pesticides
12. Thallium	56. Acenaphthene	102. Aldrin
13. Zinc	57. Acenaphthylene	103. Alpha BHC
Miscellaneous	58. Anthracene	104. Beta BHC
14. Cyanide	59. Benzidine	105. Delta BHC
15. Asbestos (not required unless requested)	60. Benzo (a) Anthracene	106. Gamma BHC
16. 2,3,7,8-Tetrachlorodibenzo-P-Dioxin (TCDD)	61. Benzo (a) Pyrene	107. Chlordane
Volatile Organics	62. Benzo (b) Fluoranthene	108. 4, 4' - DDT
17. Acrolein	63. Benzo (g,h,i) Perylene	109. 4, 4' - DDE
18. Acrylonitrile	64. Benzo (k) Fluoranthene	110. 4, 4' - DDD
19. Benzene	65. Bis (2-Chloroethoxy) Methane	111. Dieldrin
20. Bromoform	66. Bis (2-Chloroethyl) Ether	112. Alpha Endosulfan
21. Carbon Tetrachloride	67. Bis (2-Chloroisopropyl) Ether	113. Beta Endosulfan
22. Chlorobenzene	68. Bis (2-Ethylhexyl) Phthalate	114. Endosulfan Sulfate
23. Chlorodibromomethane	69. 4-Bromophenyl Phenyl Ether	115. Endrin
24. Chloroethane	70. Butylbenzyl Phthalate	116. Endrin Aldehyde
25. 2-Chloroethyl Vinyl Ether	71. 2-Chloronaphthalene	117. Heptachlor
26. Chloroform	72. 4-Chlorophenyl Phenyl Ether	118. Heptachlor Epoxide
27. Dichlorobromomethane	73. Chrysene	119. PCB 1016
28. 1,1-Dichloroethane	74. Dibenzo (a,h) Anthracene	120. PCB 1221
29. 1,2-Dichloroethane	75. 1,2-Dichlorobenzene	121. PCB 1232
30. 1,1-Dichloroethylene	76. 1,3-Dichlorobenzene	122. PCB 1242
31. 1,2-Dichloropropane	77. 1,4-Dichlorobenzene	123. PCB 1248
32. 1,3-Dichloropropylene	78. 3,3'-Dichlorobenzidine	124. PCB 1254
33. Ethylbenzene	79. Diethyl Phthalate	125. PCB 1260
34. Methyl Bromide	80. Dimethyl Phthalate	126. Toxaphene
35. Methyl Chloride	81. Di-n-Butyl Phthalate	Revised: 7/7/2000
36. Methylene Chloride	82. 2,4-Dinitrotoluene	
37. 1,1,2,2-Tetrachloroethane	83. 2-6-Dinitrotoluene	
38. Tetrachloroethylene	84. Di-n-Octyl Phthalate	
39. Toluene	85. 1,2-Dipenylhydrazine	
40. 1,2-Trans-Dichloroethylene	86. Fluoranthene	
41. 1,1,1-Trichloroethane	87. Fluorene	
42. 1,1,2-Trichloroethane	88. Hexachlorobenzene	
43. Trichloroethylene	89. Hexachlorobutadiene	
44. Vinyl Chloride	90. Hexachlorocyclopentadiene	